SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

An Autonomous Institution

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

COURSE NAME : 19EE603 IOT FOR ELECTRICAL ENGINEERS

III YEAR /VI SEMESTER ELECTRICAL AND ELECTRONICS ENGINEERING

Unit 1 –Introduction

Internet of Things Promises

What is IoT?

The Internet of Things (IoT) is the network of physical objects or "things“ embedded with electronics, software, sensors, and network connectivity, which enables these objects to collect and exchange data.

IoT allows objects to be sensed and controlled remotely across existing network infrastructure, creating opportunities for more direct integration between the physical world and computer-based systems and resulting in improved efficiency, accuracy and economic benefit

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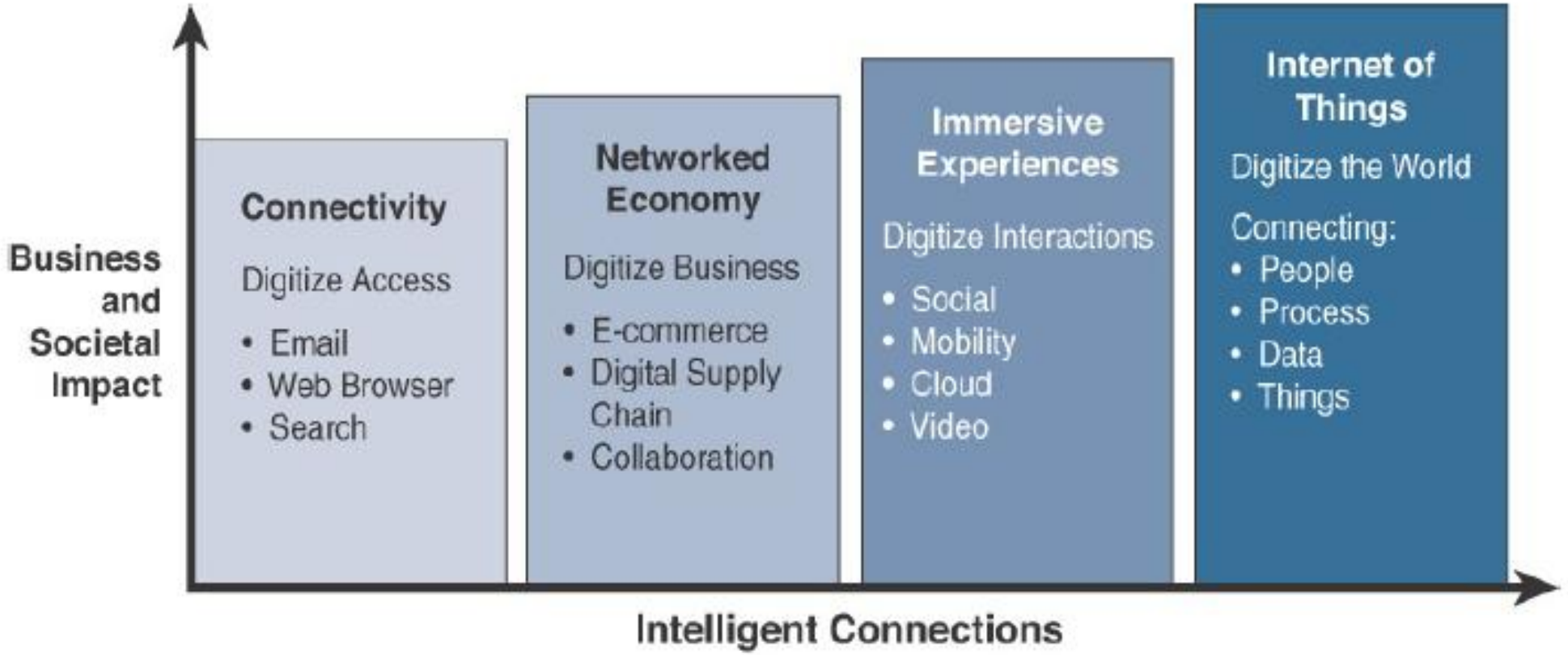
- The basic premise and goal of IoT is to “connect the unconnected.” This means that objects that are not currently joined to a computer network, namely the Internet, will be connected so that they can communicate and interact with people and other objects.
- IoT is a technology transition in which devices will allow us to sense and control the physical world by making objects smarter and connecting them through an intelligent network

Genesis of IoT

- The age of IoT is often said to have started between the years 2008 and 2009.
- During this time period, the number of devices connected to the Internet eclipsed the world's population.
- With more "things" connected to the Internet than people in the world, a new age was upon us, and the Internet of Things was born.
- The person credited with the creation of the term "Internet of Things" is Kevin Ashton. While working for Procter & Gamble in 1999, Kevin used this phrase to explain a new idea related to linking the company's supply chain to the Internet.

EVOLUTIONARY PHASE OF INTERNET



INTERNET OF THINGS PROMISES

- The Internet of Things (IoT) aims to translate our physical world into digital signals, ripe for the improvements promised by faster communication and better analytics. One of the greatest obstacles to the broad adoption of IoT is the introduction of cyber risk – real and perceived – to buyers.
- Internet of Things producers need to improve that ratio by developing clear, measurable product benefits in tandem with customer support models that address cyber risk. They should create cybersecurity capabilities at the beginning of their market growth, from identifying and addressing cyber risk in product design to detailed cyber-incident response plans with clear action items and owners.

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- Furthermore, IoT start-ups are particularly vulnerable to the tradeoffs between immediate revenue through accelerated market adoption and risked future revenue from security vulnerabilities. The common rush to build IoT products before securing them will make them potentially vulnerable to cyber-incidents.

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