SAP S/4 HANA - Simple Logistics Training
By Praveen

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New Technologies

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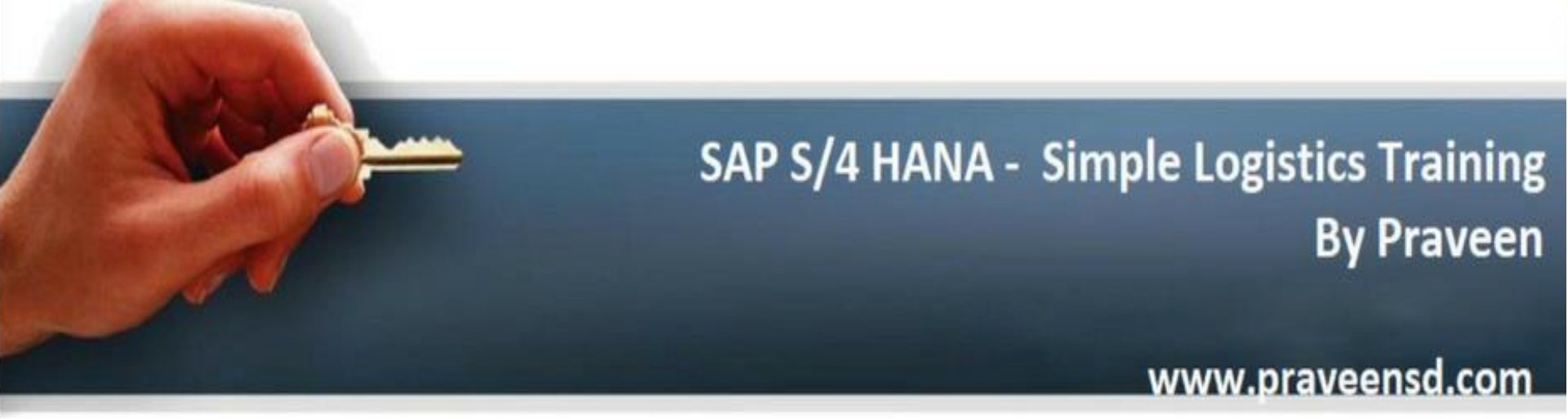
IOT – Internet of Things

The **Internet of things** (**IoT**) is the network of physical devices, vehicles, home appliances and other
items embedded with electronics, software, sensors, actuators, and connectivity while Internet of things (IoT) is the network of physical devices, vehicles, home appliances and other items embedded with electronics, software, sensors, actuators, and connectivity which enables these objects to connect and exchange data.ch enables these objects to connect and exchange data.

Experts estimate that the IoT will consist of about 30 billion objects by 2020.[4] It is also estimated that the global market value of IoT will reach $7.1 trillion by 2020.[5]

The term "the Internet of things" was coined by Kevin Ashton of Procter & Gamble, later MIT's Auto-ID Center, in 1999.[16]



IOT Application In Industry

Things," in the IoT sense, can refer to a wide variety of devices such as heart monitoring implants, biochip transponders on farm animals, cameras streaming live feeds of wild animals in coastal waters,[11] automobiles with built-in sensors, DNA analysis devices for environmental/food/pathogen monitoring,[12] or field operation devices that assist firefighters in search and rescue operations.[13] Legal scholars suggest regarding "things" as an "inextricable mixture of hardware, software, data and service".[14]

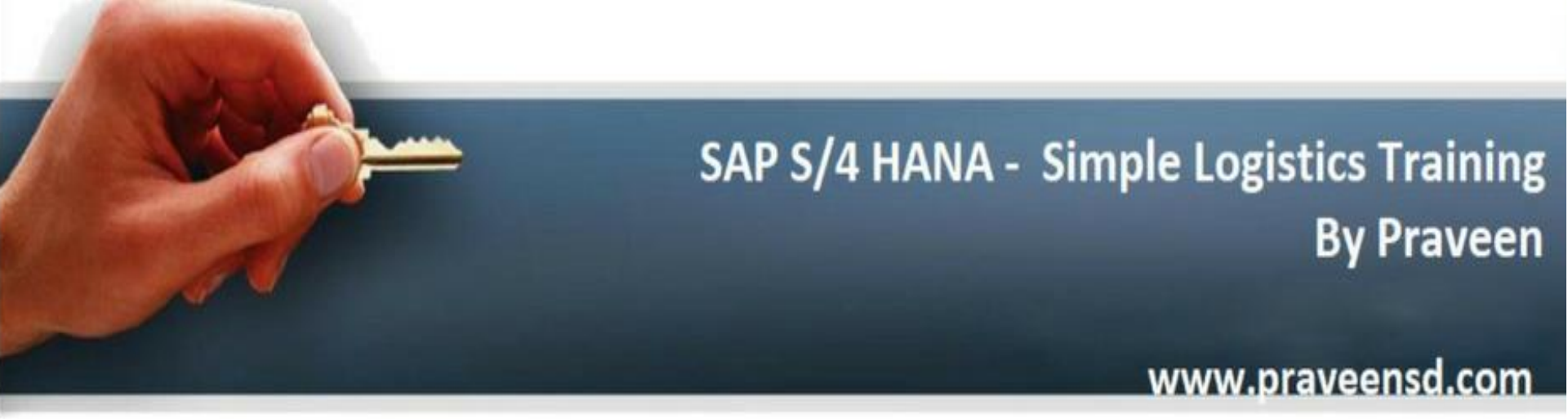
Manufacturing : Users PLC (Programmable Logical controllers , SCADA – Supervisory control and data acquisition(Eg in electrical substation

Consumer application : Home Automation : Smart Home , Washing machines , connected cars

Agriculture

. The integration of wireless sensors with agricultural mobile apps and cloud platforms helps in collecting vital information pertaining to the environmental conditions[79] – temperature, rainfall, humidity, wind speed, pest infestation, soil humus content or nutrients, besides others – linked with a farmland, can be used to improve and automate farming techniques.

Energy management : Smart Meters : AMI – Advanced metering and Infrastructure



Intelligent Systems for a More Connected World

WHAT ARE INTELLIGENT SYSTEMS?

Intelligent Systems are devices that transform how we travel, shop, make things and more.

Connected
Shares data through Internet and the cloud

Managed
Can be remotely monitored, updated and power controlled

Secured
Protects data against malware, theft and tampering

7 Connected Devices per Person
By 2020 each person will own an average of 7 connected devices[1].

COMMUNICATIONS

#2 Data Breach
Medical data disclosure is the second most breached source of data[2].

MEDICAL

71% of Shoppers are Multi-Channel...
based on respondents planning their 2011 holiday shopping[3].

RETAIL

23.6M Connected Cars

8.7 (2010) → 23.6 (2016)

23.6 million cars will have Internet access by 2016, rising from 8.7 million in 2010[5].

VEHICLES

30% Annual Growth Rate
Projected increase in connected machine-to-machine devices over the next 5 years[4].

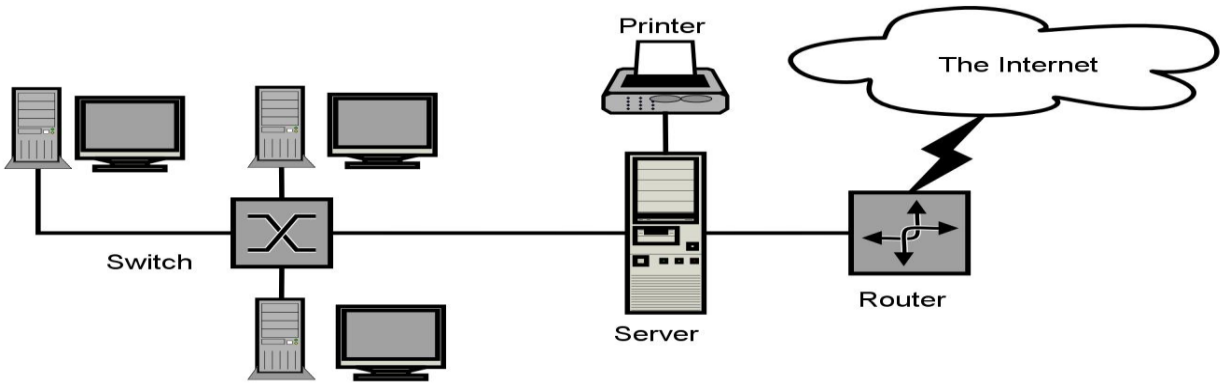
INDUSTRIAL

1) Cisco, "The Internet of Things: How the Next Evolution of the Internet Is Changing Everything", April 2011
2) Bloor Research, "Security challenges in the US healthcare sector" White Paper, December 2010, http://www.mcafee.com/us/resources/white-papers/wp-bloor-healthcare-security.pdf
3) Deloitte U.S., 2011 Annual Holiday Survey, http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/Consumer%20Business/us_retail_AnnualHolidaySurvey_2011_pr_102611.pdf
4) McKinsey Global Institute analysis, "Big data: The next frontier for innovation, competition, and productivity", June 2011)
5) Wall Street Journal, http://online.wsj.com/article/SB10001424052702304066504576349763614933844.html, estimate from research firm, Frost & Sullivan

intel Intelligent Systems

What Is Cloud Computing

In the simplest terms, cloud computing means storing and accessing data and programs over the Internet instead of your computer's hard drive. The cloud is just a metaphor for the Internet



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Types of cloud

Private

- Single tenant implementation
- Owned and operated by IT organization
- Define your own data management policies
- Self-service and automation capabilities provide new agility

Hybrid

- Combination for Private & one or more public clouds
- Allows IT organizations to become brokers of services

Public

- Multi-tenant implementation
- Owned and operated by Service Provider
- Bound by multi-tenant data management policies
- Similar self-service and automation capabilities as Private Cloud

Cloud For Business

There is an entirely different "cloud" when it comes to business. Some businesses choose to implement **Software-as-a-Service** (SaaS), where the business subscribes to an application it accesses over the Internet. (Think **Salesforce.com**.) There's also Platform-as-a-Service (PaaS), where a business can create its own custom applications for use by all in the company. And don't forget the mighty **Infrastructure-as-a-Service** (IaaS), where players like Amazon, Microsoft, Google, and Rackspace provide a backbone that can be "rented out" by other companies. (For example, Netflix provides services to you because it's a customer of the cloud services at **Amazon**.)

SAP Ariba , Concur , Filed glass , SuccessFactors, SAP HANA clould

Bigdata

Big data is data sets that are so voluminous and complex that traditional data processing application software are inadequate to deal with them. Big data challenges include capturing data, data storage, data analysis, search, sharing, transfer, visualization, querying, updating, information privacy and data source.

There are five dimensions to big data known as Volume, Variety, Velocity and the recently added Veracity and Value.

Big data involves the data produced by different devices and applications. Given below are some of the fields that come under the umbrella of Big Data.

•**Black Box Data** : It is a component of helicopter, airplanes, and jets, etc. It captures voices of the flight crew, recordings of microphones and earphones, and the performance information of the aircraft.

•**Social Media Data** : Social media such as Facebook and Twitter hold information and the views posted by millions of people across the globe.

•**Stock Exchange Data** : The stock exchange data holds information about the 'buy' and 'sell' decisions made on a share of different companies made by the customers.

•**Power Grid Data** : The power grid data holds information consumed by a particular node with respect to a base station.

•**Transport Data** : Transport data includes model, capacity, distance and availability of a vehicle.

•**Search Engine Data** : Search engines retrieve lots of data from different databases.