Smart devices and services are objects with computer systems embedded in them; they are usually connected to the internet and provide the user with enhanced functionality when compared to their non-smart counterparts. This extra ability to collect, process, and react to stimuli from the real world is what makes them smart.

Characteristics:

Reactive systems

Real-time systems

Continuous/discrete/hybrid systems
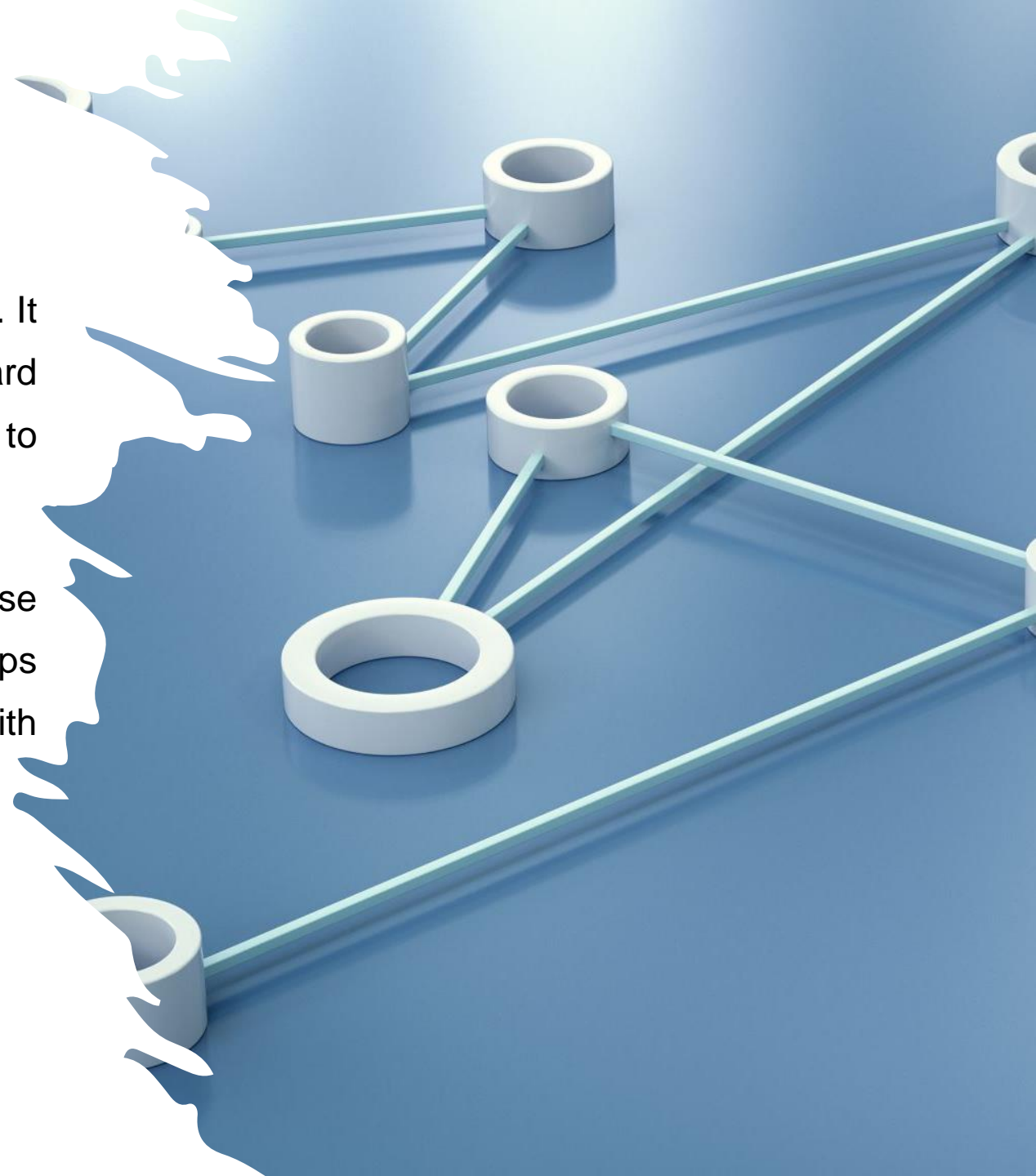
Dependable systems

Distributed systems

Reactive systems

❖It is a term used to describe an architectural style that enables applications composed of multiple microservices to work together in order to better react to their surroundings and to one another.

❖The watch is reactive user's behavior such as auto on/off clock when user lift up/down the arm to check/uncheck the time, a touch screen allows user control the watch with fingers: pick up phone, open apps.

Real-time system

❖A system which is used for performing some specific tasks. It is a computational   system which is used for various hard and soft real time tasks. These specific tasks are related to time constraints.

❖ In the watch is immediately send notification to user in case of new coming messages/calls or inside running apps responses quickly when user want to control the watch with touch screen or update location via GPS system

Dependable systems:

❖ The watch is connected to smartphone to have full functionality and characterized by the following attributes:

- *Reliability:* the system behaves as expected, with very few errors. As well as smart watch also helps increase and maintain quality of the output.

- *Availability:* the system and services are mostly available.

- *Safety:* the systems do not pose unacceptable risks to the environment or the health of users.

- Security: Using security automation, one can reduce the threat of access to the information of smart watch

Distributed systems:

the watch collect the health data of user and send to smartphone for analyse store in server, together with smartphone it becomes a node in processing health data of user

Data automation is based on accurate data integration and connectivity.

When accurate information is used in the production process, you can be assured of precise results.