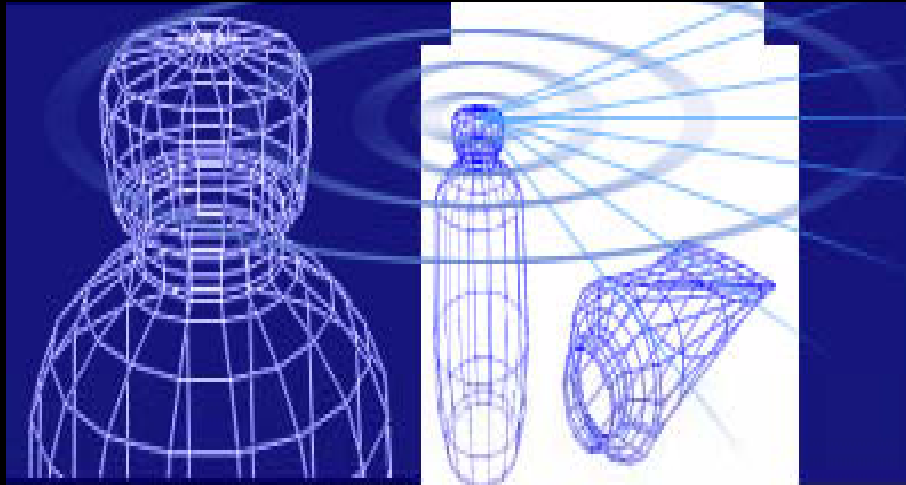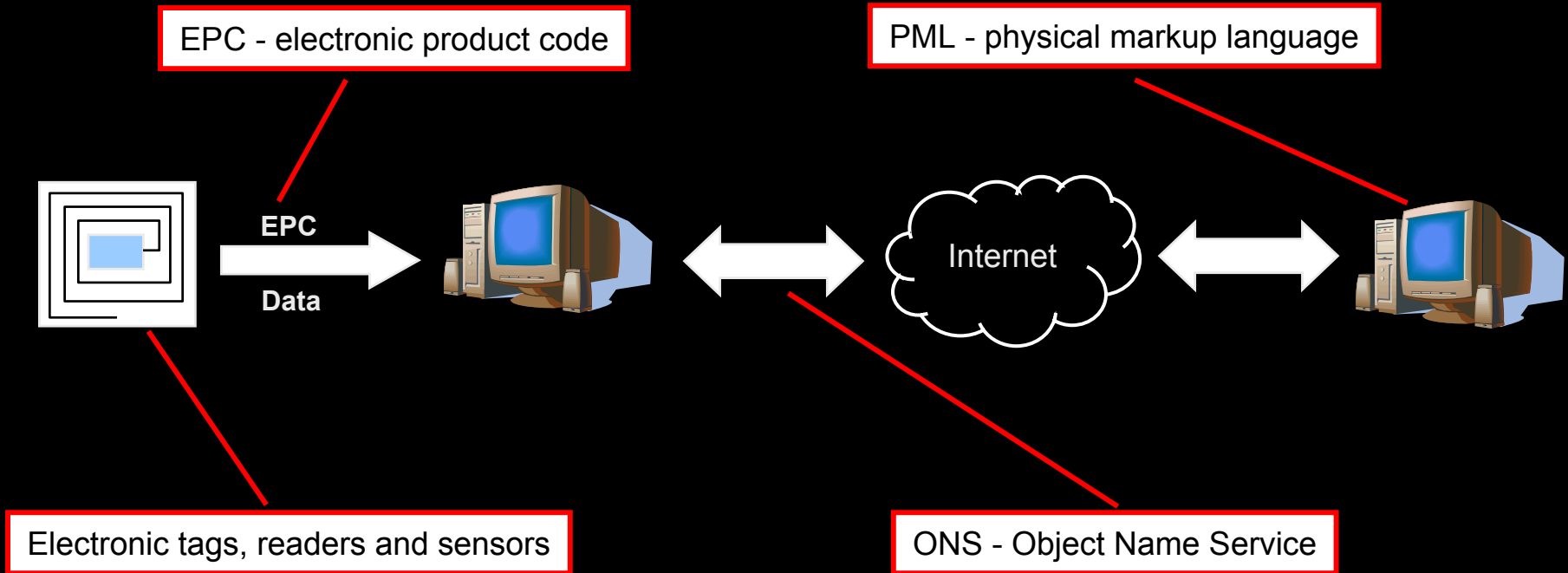# Physical Markup Language
Version 1.0

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AUTO-ID CENTER

EPC - electronic product code

PML - physical markup language

EPC

Data

Internet

Electronic tags, readers and sensors

ONS - Object Name Service

Objective of PML

Common language for describing physical objects, systems, processes and environments.

Generality

- Addresses largest numbers of industries

- Encourages software development

- Describes common characteristics of physical objects

- Encourages inter-industry cooperation and information transfer.

Simplicity

- Simple standards encourage adoption, reduce learning curves and increase audience.

Pathway

• Rather than a single standard, PML will proceed through a series of planned iterations.

• A complex language will limit learning and a simple language would be insufficient.

• A series of increasing sophisticated releases will allow familiarity to grow with capability.

Timestamps

• Static, temporal and dynamic are time dependent views of generic data.

• Time stamps, durations and frequencies will be provided for all data elements in the Physical Markup Language.

Nomenclature

- PML will avoid verbose names for data types.

- Efficient mnemonics designed by and for software developers.

Robust

• PML will operate effectively with incomplete or intermittent information.

• The language will have to support alternatives and approximations to inaccessible data

Units

- PML will adopt a single standard for weights and measures.

- Translation software in both the PML editors and viewers will provide the necessary conversion to familiar standards.

Background

Syntax

• **PML will use the Extensible Markup Language (XML) as the method to store and transmit data.**

• **General XML utilities, viewers and validating software exist to parse, modify and access XML files.**

Background

PML Version 0.1 beta Field Trial

Table of Contents

Single representation

- PML uses a single representation for information elements

Exact not abstract representation

- **PML specifies an exact representation of data types.**

Developers Tool

• PML is designed and implemented primarily as a tool for software developers.

Modular building blocks

- PML contains modular elements that can be mixed and matched in higher-level data structures.