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## *Different strategies for actively reducing the network attack surface*

**Source:** Reddit

[www.reddit.com/r/talesfromtechsupport/comments/6ovy0h/how\\_the\\_coffeemachine\\_took\\_down\\_a\\_factories/](https://www.reddit.com/r/talesfromtechsupport/comments/6ovy0h/how_the_coffeemachine_took_down_a_factories/)



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## Attack Surface

### Attack Surface

**attack surface** – the sum of the potential exposure area that could be used to gain unauthorized entry to any part of a **digital landscape**. This area usually includes perimeter **network** hardware (such as **firewalls**) and **web servers** (hardware that hosts Internet-enabled **applications**). It can also include extended areas of the landscape such as external applications, supplier services and mobile devices that have permission to access information or services of value.

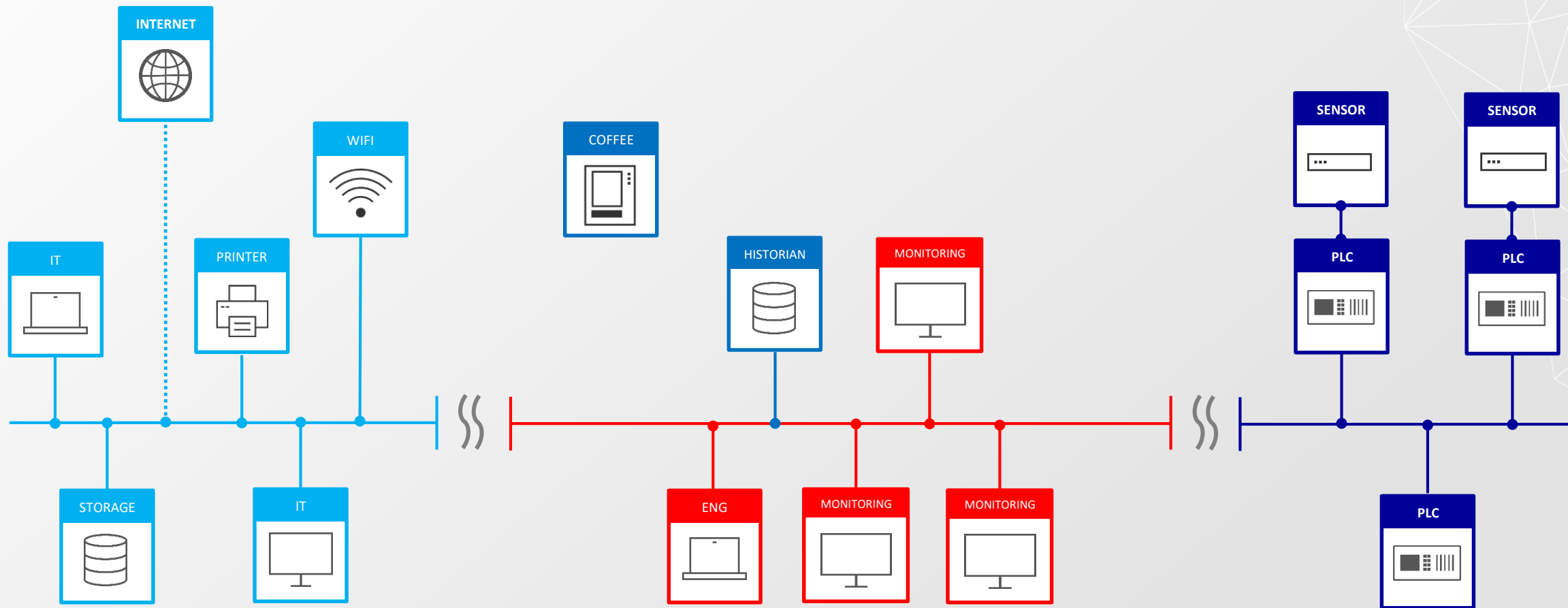
source: The Cybersecurity to English Dictionary



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## How the coffee machine took down a factory

Reddit



IT

Control Room

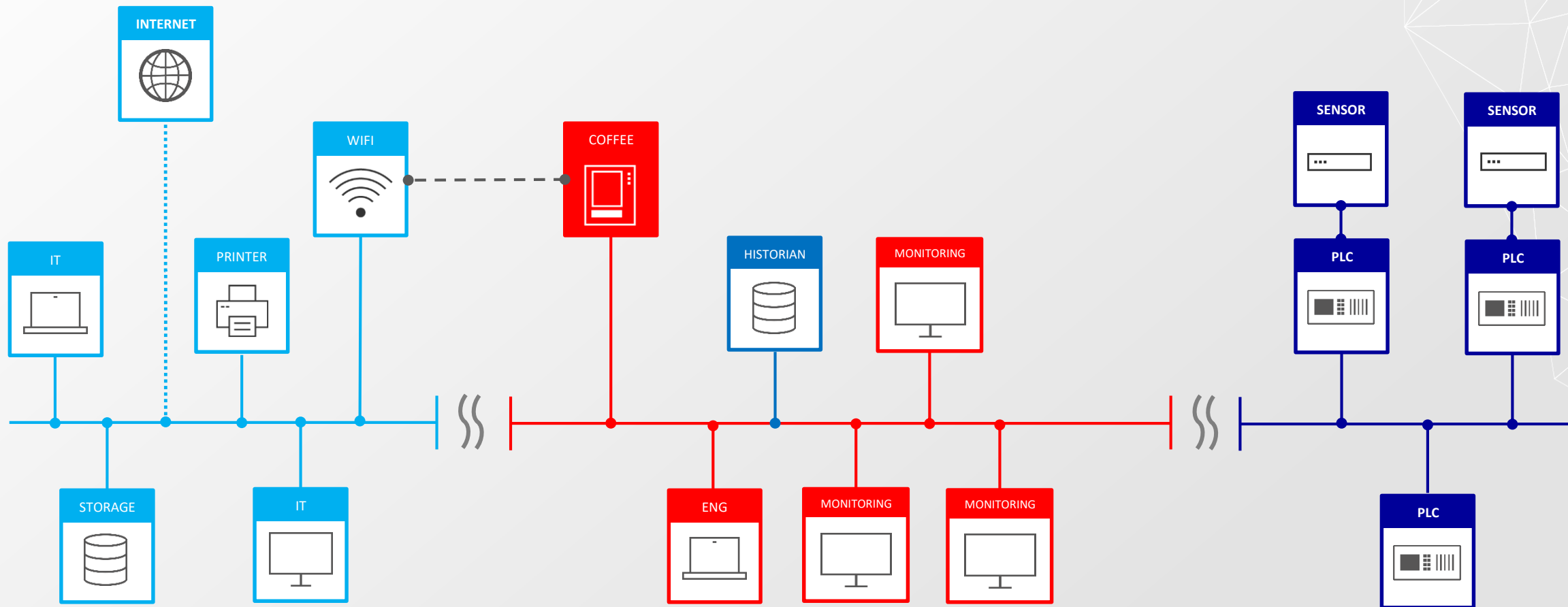
Process



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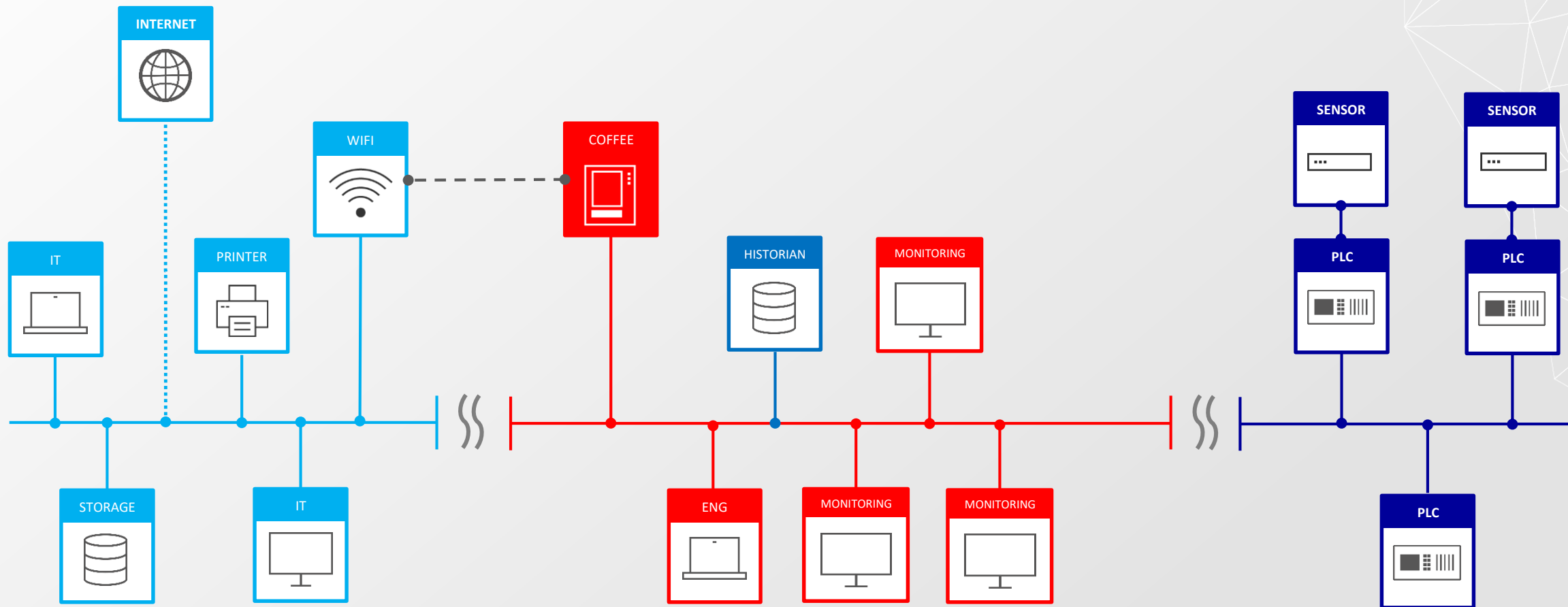
Process



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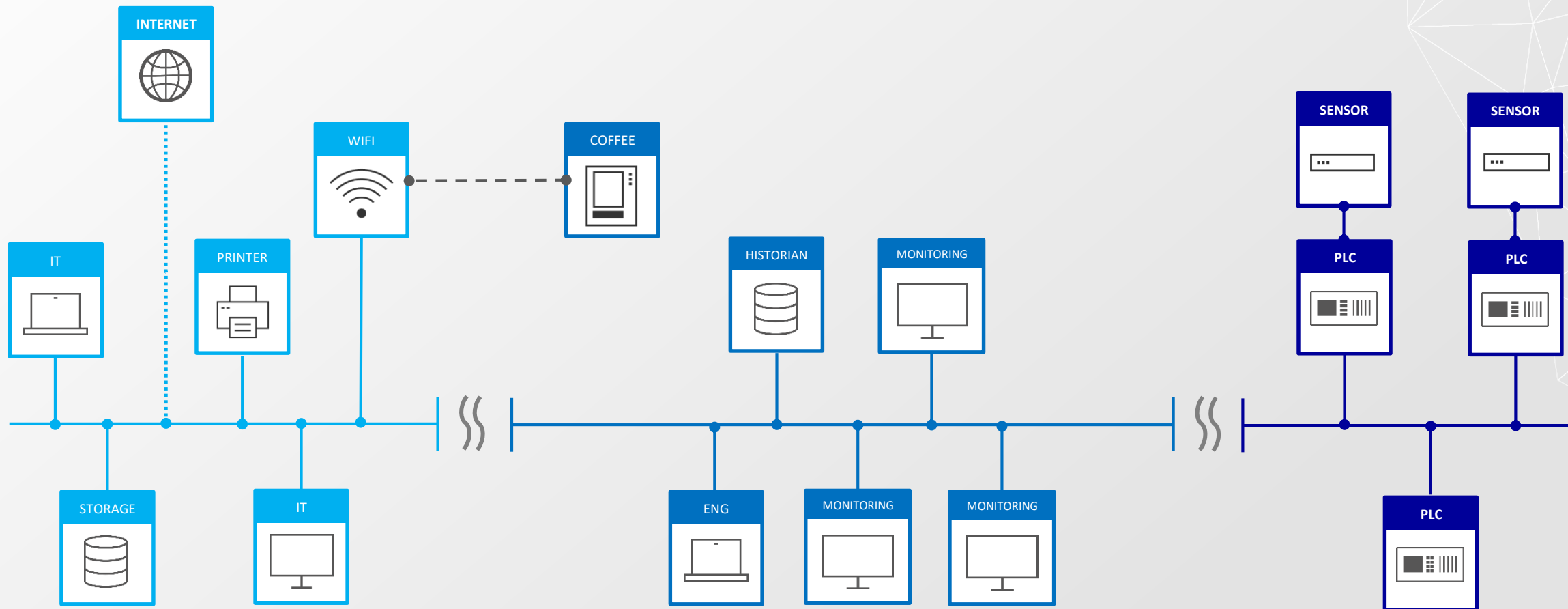




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## Endpoint Protection

### Endpoint Protection

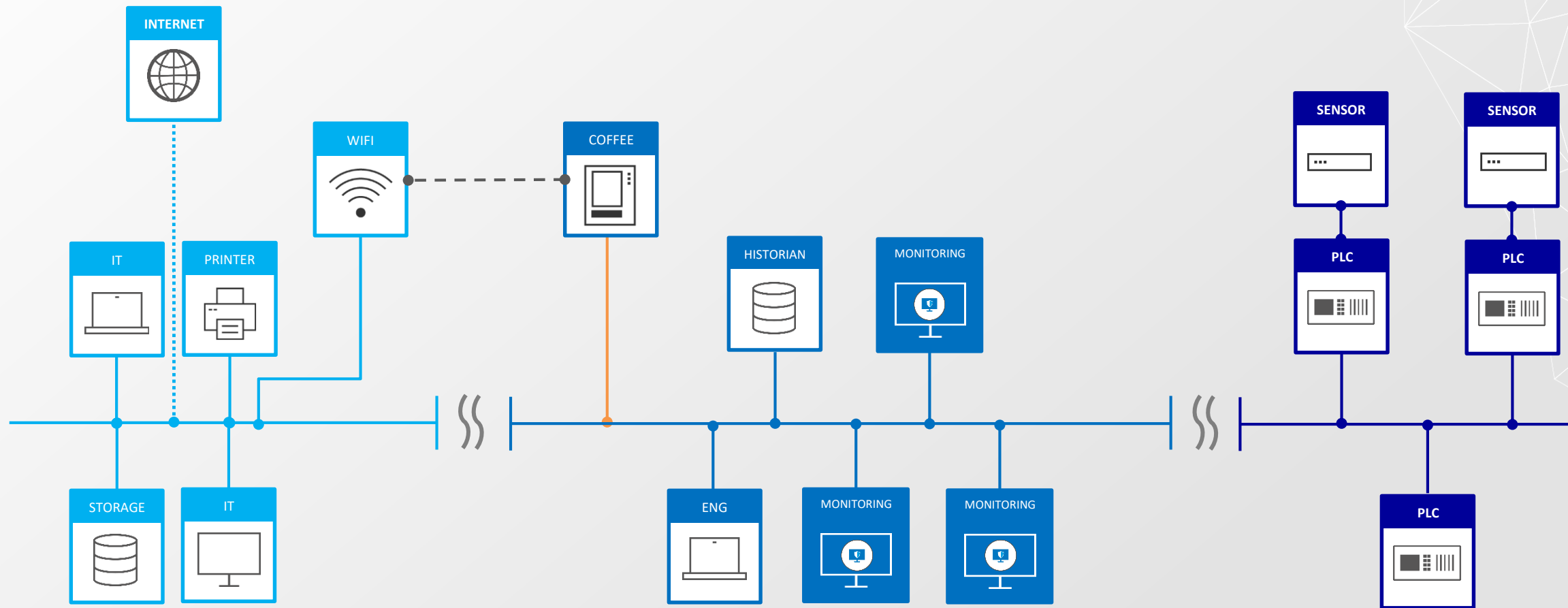
**endpoint protection** – a term used to describe the collective set of security software that has become standard for most user-operated **digital devices**. The security software may include **anti-malware**, a personal **firewall**, intrusion prevention software and other protective programs and processes.

source: The Cybersecurity to English Dictionary



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## Protecting the Endpoint



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## Network Segmentation

### Network segmentation

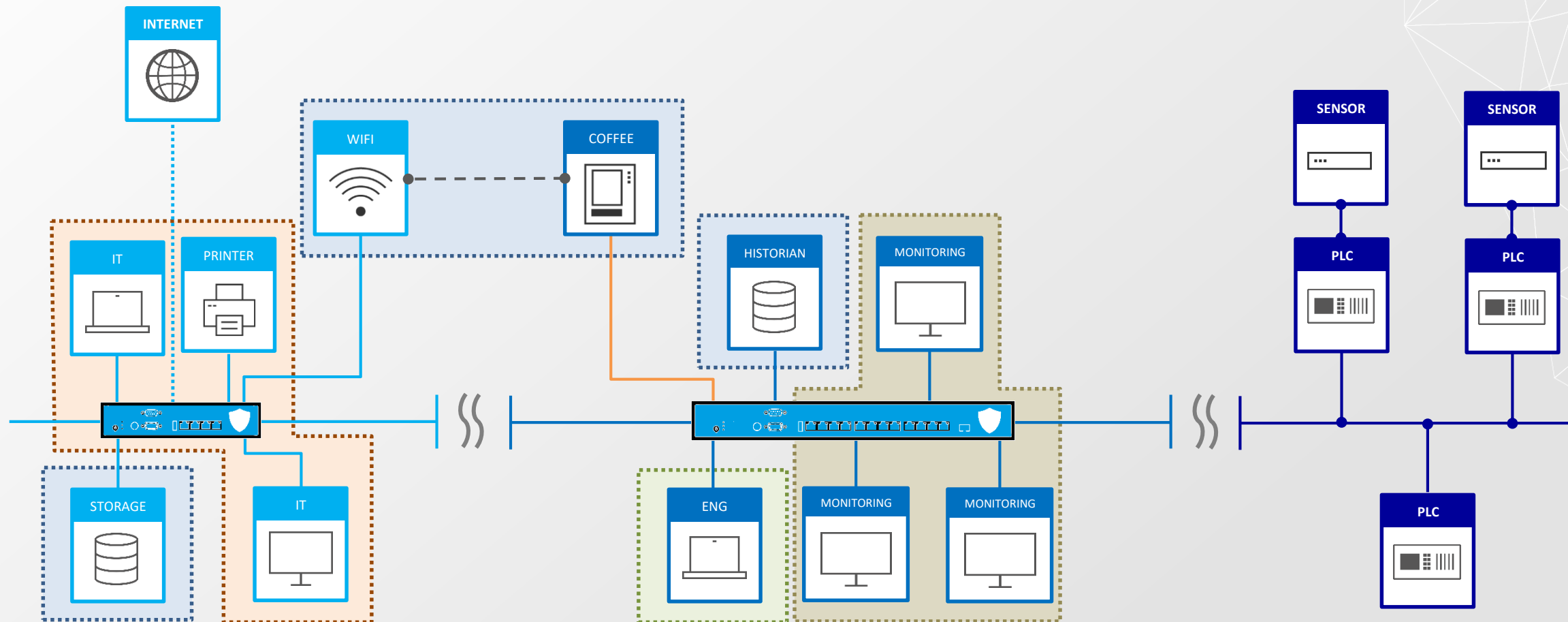
**Splitting** a single collection of devices, wiring and applications that connect, carry, broadcast, monitor or safeguard data **into smaller sections**. This allows for more discrete management of each section, allowing **greater security** to be applied in sections with the highest value, and also permitting **smaller sections to be impacted in the event of a malware infection** or other disruptive event. .

source: The Cybersecurity to English Dictionary



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## Enabling Network Segmentation



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## Network Protection and Deep Packet Inspection

### Network protection

the defensive and protective measures taken to secure a specific set of interconnected **devices**. **Firewalls** are an example of a network protection technology.

source: The Cybersecurity to English Dictionary

### Deep packet inspection

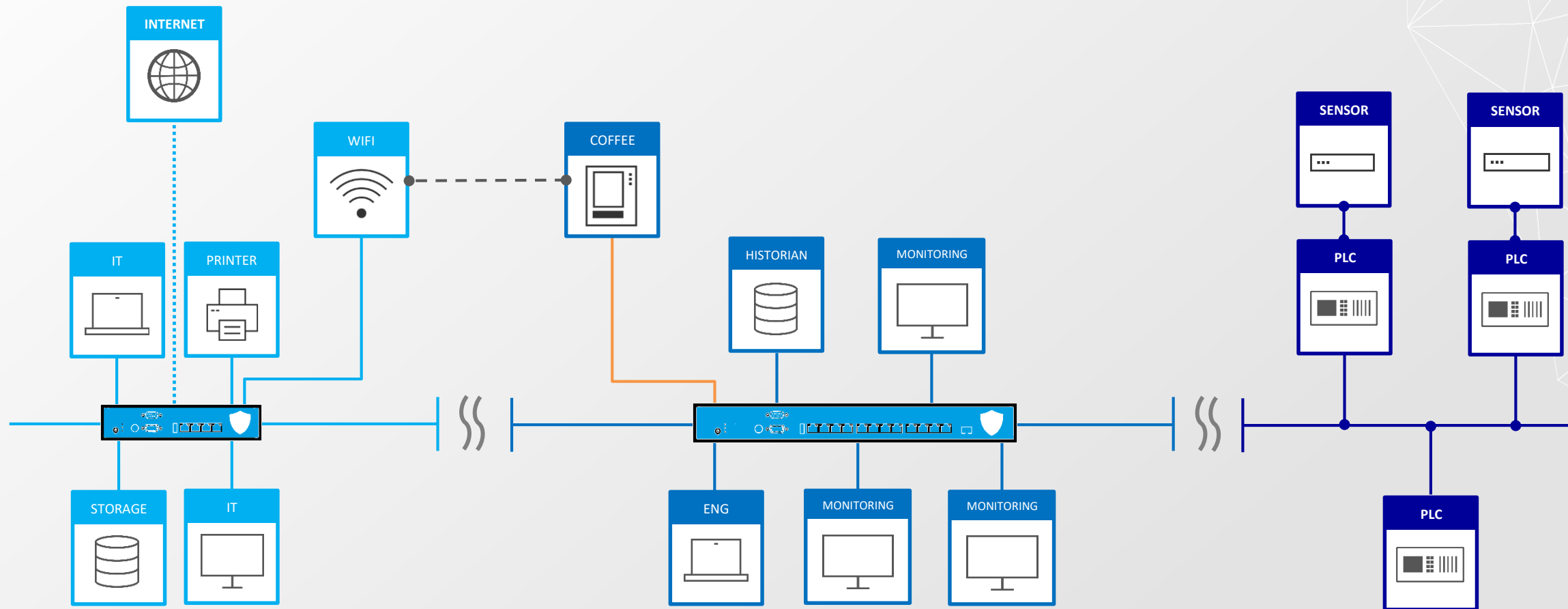
(DPI, also called **complete packet inspection** and information extraction or IX) is a form of computer network packet filtering that examines the data part (and possibly also the header) of a packet as it passes an inspection point, **searching for protocol non-compliance, viruses, spam, intrusions**, or defined criteria to decide whether the packet may pass. [...]

source: Wikipedia



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## Enabling Network Protection and Deep Packet Inspection



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## Application Network Communication Control

### Application Network Communication Control

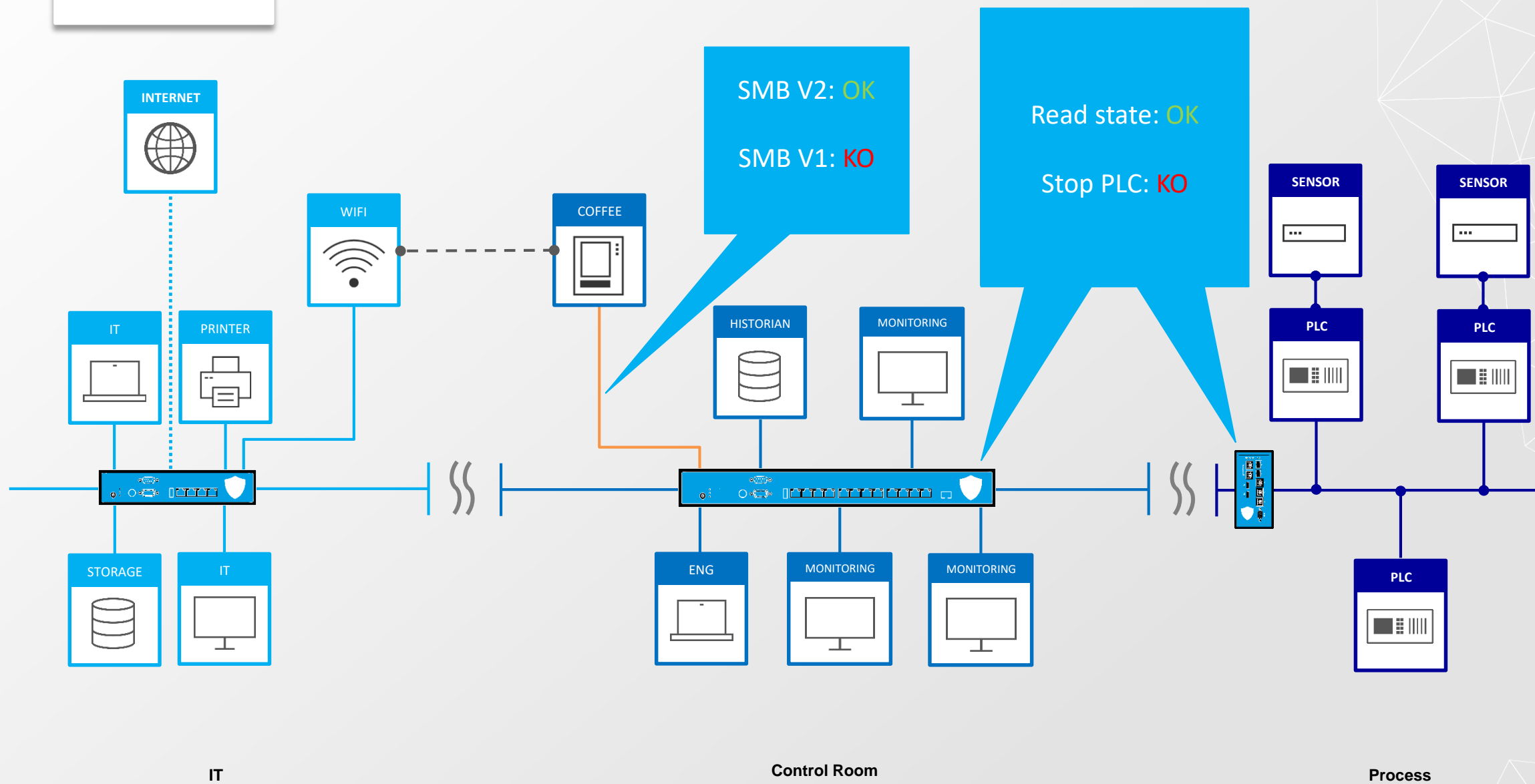
The ability to ensure that only predefined or **pre-allowed messages can go through** protection inspection points.

source: None



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## Enabling Application Network Communication Control







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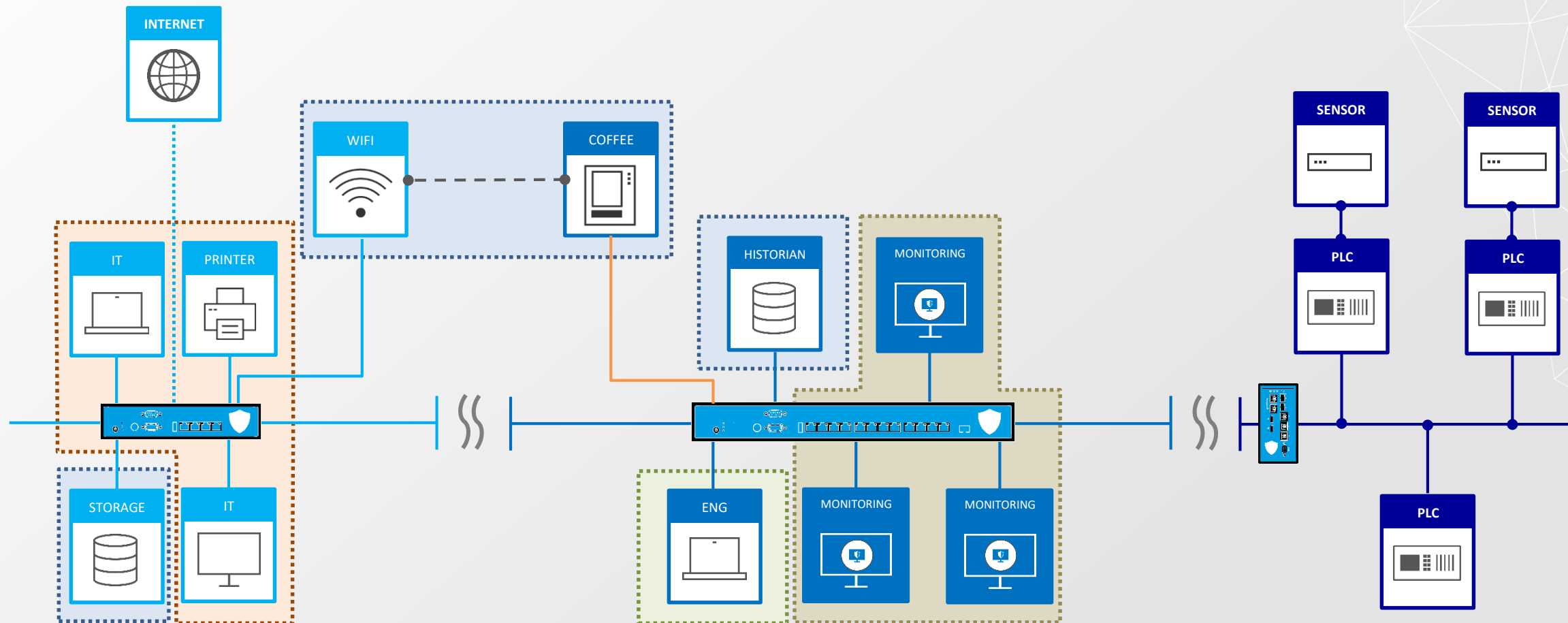
# Stop coffee

Conclusion



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The more strategies you apply, the safer you are



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# Q&A

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