**🖥️ Nagios and Continuous Monitoring**

**🔹 1. What is Continuous Monitoring?**

* Continuous Monitoring = **real-time tracking** of systems, applications, and networks.
* Ensures everything is working correctly (performance, security, uptime).
* Provides **alerts** when something goes wrong.

👉 Think of it as a **24/7 CCTV camera** for your IT environment.

**🔹 2. Why Continuous Monitoring is Needed**

* Detect problems **early** (before customers notice).
* Maintain **high availability** of apps/servers.
* Improve **security** with log and event monitoring.
* Support **DevOps pipelines** → ensures new deployments don’t break the system.
* Helps with **compliance & audits**.

**🔹 3. What is Nagios?**

Nagios is one of the **most popular Continuous Monitoring tools**.

It can:

* Monitor **hosts** (servers, devices).
* Monitor **services** (databases, web servers, email).
* Send **alerts** (Email, SMS, Slack, etc.) when issues are found.
* Provide a **web dashboard** to view health and performance.
* Extend functionality using **plugins**.

**🔹 4. How Nagios Works (Simple Flow)**

1. **Nagios Core** runs on a central server.
2. It uses **plugins** (like check\_ping, check\_http) to test services.
3. Results are shown on the **web UI**.
4. If an issue is detected → Nagios sends **alerts** to admins.

**🔹 5. Example Scenario**

* Suppose you have a **web server** running your company website.
* Nagios keeps checking http://mycompany.com.
* If the site goes down → Nagios sends an alert:
* CRITICAL: Web Server is DOWN!
* Admins fix the issue quickly → less downtime.

**🔹 6. Continuous Monitoring with Nagios**

* **Continuous Monitoring** is the *concept*.
* **Nagios** is a *tool* to implement that concept.

👉 **Relation:**

Continuous Monitoring (idea) ➝ Nagios (practical implementation).

✅ **One Line Summary:**

Continuous Monitoring = always watching IT systems,  
Nagios = a powerful tool that makes Continuous Monitoring possible.