cockpit
IT Service Manager

Monitoring - Check execution

FAQ document

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Introduction

I. Document objective

- To present in an overview of how the monitoring engine manages the checks with respect to execution conditions, error handling, etc.

II. Definitions

Root check or equipment: Checks and equipment are organized hierarchically, the root (or equipment) check has no parent, it is at the top of the hierarchy.

Status of the check: The status of the check is the result of its last execution.

Check parameter alert: A parameter alert for a check (or false alert) means it was executed but could not perform its check.
Example: A disk space check on a disk that does not exist.

Check real alert: A real alert for a check means it was executed and the alert threshold was reached.

Execution conditions

Before a check is executed several conditions must be met:

- Continuous execution schedule: must be in an active period
- Status of the check: must be active (in test or in production)
- Status of the target team: must be active. In the event of a double threshold, at least one of the teams must be active
- Status of equipment monitoring: must be enable
- Environment status: must be active
- Application status: must be active
- Structure status: must be active
- Status of parent checks: all must be active (from root check to parent check)
- Maintenance period: the equipment must not be linked to a maintenance period
- Equipment hierarchy: the equipment must be reachable, this means that from the parent equipment back to the root equipment must be reachable
- Availability of the equipment: the availability check for the equipment, if any, must be successful
- Status of parent check:
  - Parameter alert: the check is not executed
  - Real alert or successful: the check is executed according to its settings (execution if parent check unsuccessful / successful)
  - Age of parent check status:
    - If the last result is more than 60 seconds old, the parent check is first executed to obtain a more recent status
    - If the last result is less than 60 seconds old, its status is used
- Previous check execution: If the previous execution of the check is still running (less than 9 minutes) or still in the queue, then the current execution is canceled.

> Note: When a check or equipment is modified, all checks of the equipment are rescheduled according to their schedule in order to take into account any changes (control hierarchy, schedule, etc.). For continuous schedules this means immediate execution.

Error management

During execution of a check, errors are processed as follows:

- When a check runs for more than 9 minutes, an interrupt attempt is sent. If the cancellation works, the check is returned to the queue to be run again
- When 300 checks are already running on an engine, the following checks to be executed are put on hold
- In case of a parameter alert, new execution attempts are started with an increasing waiting time (10, 20, 40 ... seconds)

> Note: the number of attempts is entered directly in the database and cannot be changed, and may vary depending on the type of check. Most commonly there are 2 attempts.

- In case of a real alert, there are no new attempts to execute, except for "Connection" type checks for which a second attempt is made.
- When the check runs out of time (timeout):
  - If it is a root check (it has no parent checks), then an alert is generated.
  - If it is a child check (it has a parent check), then no alert is generated, except for "Connection" type checks for which an alert is generated.
  - If the check is a "Connection" check and the "Invert result" parameter is active, the check is marked successful.

For other types of check, even with the "Invert result" parameter active, an alert is generated in case of timeout.

- After consecutive executions with a parameter alert, the following execution is skipped.

For the subsequent executions, the skipped execution count will increase by one execution while the check continues to return a parameter alert (up to 4 executions skipped).

Example: A check scheduled every hour with a constant parameter alert will only be executed every 5 hours.

> Note: The "Connection" type checks are as follows:
> AS400 – Connection test
> BD – Connection test
> ESX – Connection test
> Unix – Connection test
> Equip. – Ping
> Equip. – Port
> SAP – Connection test
> Windows – Connection test

Document end