

# Analytics rules in Microsoft Sentinel

3.1 Analytics rules in Microsoft Sentinel are the **detection engine**. They continuously query ingested logs (using KQL) to identify suspicious activity, anomalies, or policy violations. When a rule's condition is met, Sentinel generates an **alert** and can group alerts into **incidents** for SOC investigation.

The screenshot shows the Microsoft Sentinel Analytics rules page. The left sidebar includes sections for General, Threat management, Content management, Configuration, and Analytics. The main area displays a list of 4 active rules, each with a severity level (e.g., Medium, High), name, rule type (Scheduled), data sources (Microsoft Entra ID), tactics (Initial Access, Credential Access, etc.), techniques (T1190, T1110, etc.), and source names (Standalone, Microsoft Entra ID). A legend at the top indicates the color coding for severity: High (Red), Medium (Orange), Low (Yellow), and Informational (Green). A message on the right says "No analytics rules select" and "Select an analytics rule to view more".

## 3.1.1 We will create own query and test it

Scenario: Detect multiple failed sign-ins from the same IP within 10 minutes in Microsoft Entra ID

The screenshot shows the Microsoft Sentinel Analytics rule wizard. The "General" tab is selected. The "Name" field contains "multiple failed sign-ins". The "Description" field contains "Detect multiple failed sign-ins from the same IP within 10 minutes:". The "Severity" is set to "Medium". The "MITRE ATT&CK" section shows "Initial Access". The "Status" is set to "Enabled". Other tabs include "Set rule logic", "Incident settings", "Automated response", and "Review + create".

### 3.1.2 Enter Query (Use KQL Language) and Set Scheduling according to environment

Define the logic for your new analytics rule.

**Rule query**  
Any time details set here will be within the scope defined below in the Query scheduling fields.

```
SigninLogs  
| where ResultType == "50126" // failed login  
| summarize FailedAttempts = count() by IPAddress, bin(TimeGenerated, 10m)  
| where FailedAttempts > 5
```

[View query results >](#)

**Alert enhancement**

- > Entity mapping
- > Custom details
- > Alert details

**Query scheduling**

Run query every \*  
10 Minutes

Lookup data from the last \*  
24 Hours

Start running

[< Previous](#) [Next : Incident settings >](#)

### 3.1.3 Save the Rule

(✓) Validation passed.

**Analytics rule details**

Name	multiple failed sign-ins
Description	Detect multiple failed sign-ins from the same IP within 10 minutes:
MITRE ATT&CK	<input checked="" type="checkbox"/> Initial Access
Severity	<span style="color: orange;">Medium</span>
Status	<span style="color: green;">Enabled</span>

**Analytics rule settings**

Rule query	SigninLogs   where ResultType == "50126" // failed login   summarize FailedAttempts = count() by IPAddress, bin(TimeGenerated, 10m)   where FailedAttempts > 5
Rule frequency	Run query every <b>10 minutes</b>
Rule period	Last <b>24 hours</b> data
Rule start time	Automatic
Rule threshold	Trigger alert if query returns <b>different than 0</b> results
Event grouping	Group all events into a single alert
Suppression	Not configured

**Entity mapping**

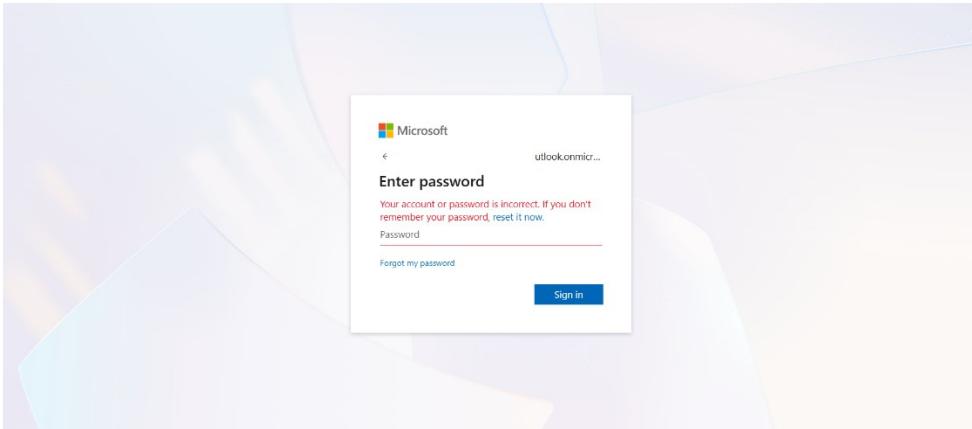
Entity 1:	Host Identifier: HostName, Value: FailedAttempts
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**Custom details**

Not configured

[< Previous](#) [Save](#)

### 3.1.4 I attempted Failed Login to Check my Custom Analytics rule.



### 3.1.5 Incident has generated under incident tab

A screenshot of the Microsoft Defender interface. The left sidebar shows navigation options like Home, Exposure management, Investigation &amp; response, Threat intelligence, Assets, Microsoft Sentinel, Email &amp; collaboration, Cloud infrastructure, Cases, SOC optimization, Reports, and Learning hub. The main area is titled 'Incidents' and shows a list of recent incidents. One incident is highlighted: 'multiple failed sign\_ins' (Medium, Active). The details pane on the right shows: Priority assessment (Not set), Incident ID (4), Classification (Not set), Categories (Initial access), First activity (Dec 4, 2025 2:20:00 PM), Creation Time (Dec 4, 2025 2:31:56 PM), and Last activity (Not set). Buttons include 'Open incident page', 'Manage incident', 'Run playbook', and three dots.

### 3.1.6 Let's Resolve the Incident

**Microsoft Defender | Default Directory**

Incidents > multiple failed sign\_ins

## multiple failed sign\_ins

Medium | Active | Unassigned | Go Hunt queries launched from the entity menu now default to a time range starting from the incident's start day.

Attack story Alerts (1) Assets (1) Investigations (0) Evidence and Response

Alerts Play attack story Unpin all Show all Dec 4, 2025 2:20 PM New multiple failed sign\_ins 7

Report incident inaccuracy

Communication Associated

**Manage incident**

Medium

Incident tags Type to find or create tags

Assign to rhythmsham [redacted] outlook.com

Status Resolved

This incident was generated intentionally as part of a training exercise. No malicious activity detected.

Classification False positive - Not malicious

Save Cancel

This screenshot shows the Microsoft Defender interface. On the left, a sidebar lists various security categories like Home, Exposure management, Investigation & response, Threat intelligence, Assets, Microsoft Sentinel, Email & collaboration, Cloud infrastructure, Cases, SOC optimization, Reports, and Learning hub. The main area displays an 'Incidents' view with a single entry: 'multiple failed sign\_ins'. This entry includes a timestamp (Dec 4, 2025 2:20 PM), status (New), and a link to 'Play attack story'. Below this is a 'Report incident inaccuracy' button. To the right, a large 'Manage incident' modal is open, containing fields for classification (set to 'Medium'), assignee ('rhythmsham [redacted] outlook.com'), status ('Resolved'), and a note indicating it's a training exercise. The 'Classification' field is set to 'False positive - Not malicious'. At the bottom of the modal are 'Save' and 'Cancel' buttons.

**Microsoft Defender | Default Directory**

This page has a new home > Intel management

## Intel management

Indicators (84,989) Attack patterns (0) Identities (1) Threat actors (0)

New Add tags Delete Columns

Values	Name	Types	Source
An unknown error occurred			

An unknown error occurred

**New TI object**

Object type\* Indicator

Pattern\* Pattern builder Free text

IPv4 address

IPv4 address value\* 17.81.146.1  
[ 17.81.146.1 ] is not a valid IPv4 address

New observable

[ ipv4-addrvalue = '17.81.146.1' ]

Name

An existing indicator with the same source and pattern already exists.

Add Cancel Add and duplicate

This screenshot shows the Microsoft Defender interface. The left sidebar includes 'Threat intelligence' under 'Investigation & response', 'Intel management' under 'Threat intelligence', and 'Assets'. The main area shows an 'Intel management' page with a table header for 'Values', 'Name', 'Types', and 'Source'. A purple hexagonal icon is displayed with the text 'An unknown error occurred'. To the right, a 'New TI object' modal is open, prompting for an 'Object type' (set to 'Indicator') and a 'Pattern' (set to 'Pattern builder'). It shows an 'IPv4 address' section with a value '17.81.146.1' which is flagged as invalid. Below this is a 'New observable' section with a complex query. A note at the bottom states 'An existing indicator with the same source and pattern already exists.' At the bottom of the modal are 'Add' and 'Cancel' buttons, along with an 'Add and duplicate' link.