


# Summary

Zabbix has a reasonably good selection of dashboard widgets for a variety of use cases, yet there is no such basic dashboard building block as a single item widget. We must fix this.

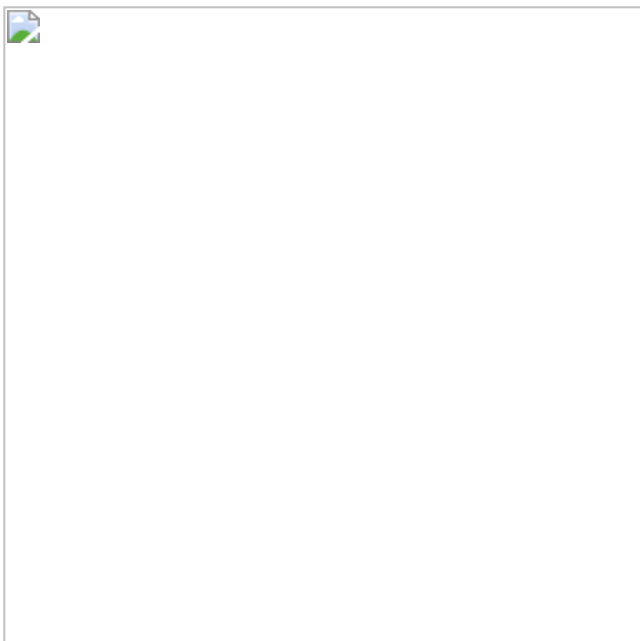
## Use cases

1. I want to display a single value for one of my items prominently in a dashboard.

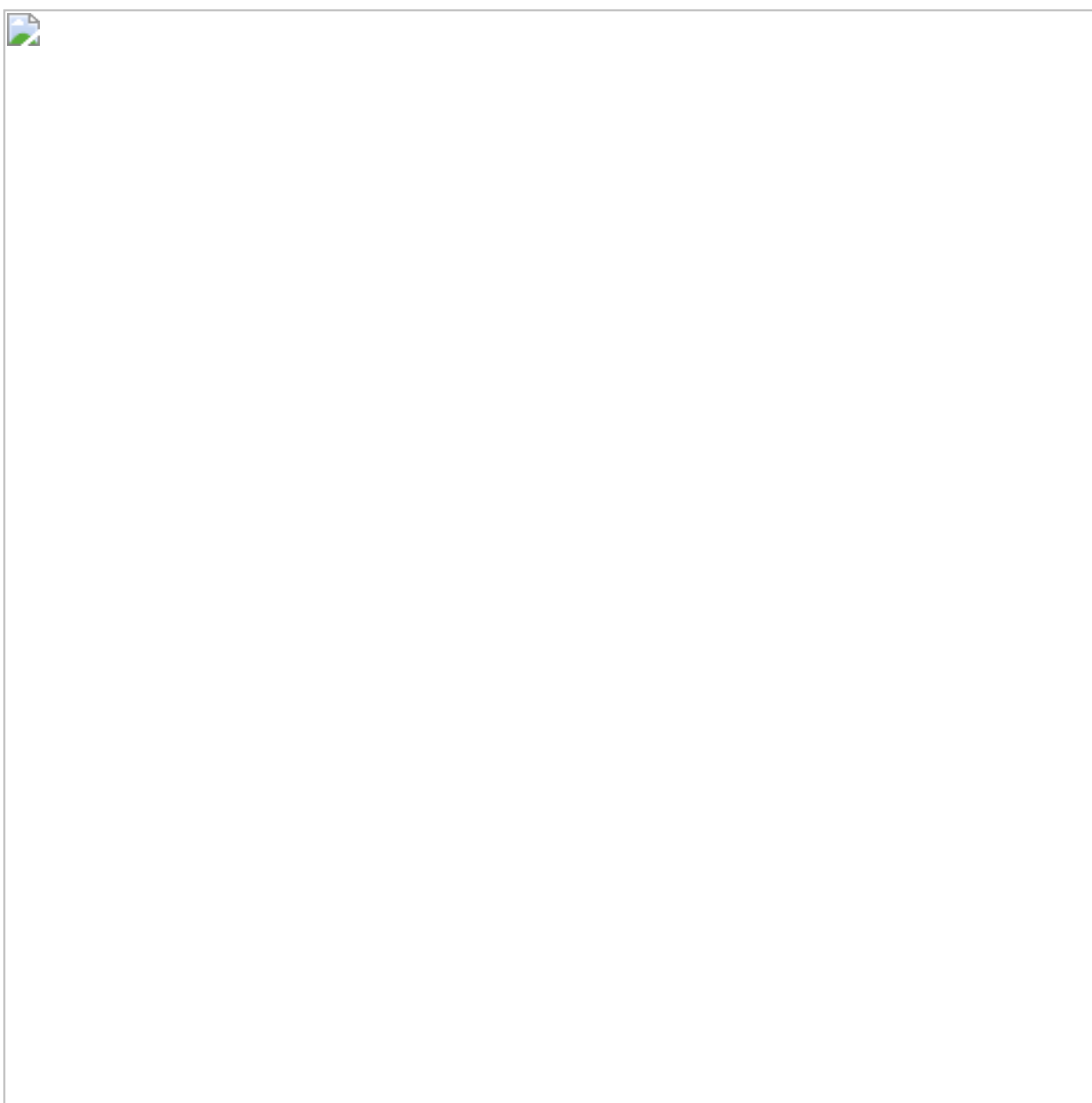
## Zabbix acceptance

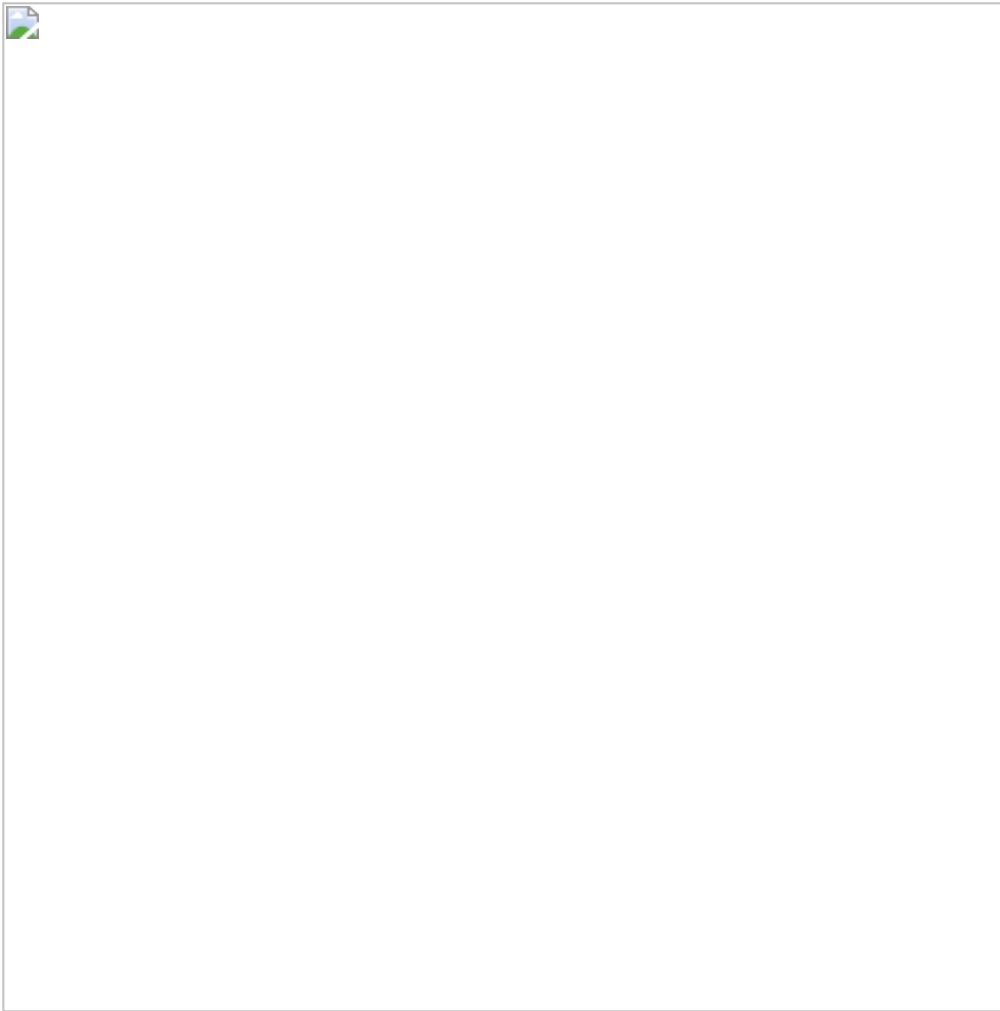
1. Single item widget (the widget) must be created
  - a. It must work in global and templated dashboards
  - b. It must display one or more fields:
    - i. Last item value (with value mapping applied)
      1. Types: numeric, character and text
        - a. Strings must be shown in one line and truncated if needed
    - ii. Units
      1. from the item configuration but can be overridden (see below)
    - iii. Description
      1. item name from the item configuration but can be overridden (see below)
      2. multiline descriptions must be supported
    - iv. Time of value (history.clock)
    - v. Change indicator
      1. Arrows ↑ (green) and ↓ (red) for numeric types
      2. Arrow ↕ (green) for value-mapped values and string types
      3. Calculated between last and previous values in history
  - c. Click on the Value must lead to
    - i. adhoc graph for numeric types
    - ii. Latest data for string types
  - d. It must provide configuration parameters:
    - i. Item
    - ii. Refresh interval (no refresh, 10 seconds, etc)
    - iii. Description
      1. overrides item name, supports {HOST.\*}, {ITEM.\*} and {INVENTORY.\*} macros
        - a. can use hint with  for supported macros
      2. configurable font size (including auto), color (optional), position, alignment (e.g. bottom, horizontally centered)
      3. visibility (on/off)
    - iv. Value
      1. configurable font size (including auto), color (optional), position, alignment
        - a. configurable font size for a fractional part of numeric float
        - b. font size can be specified in % from the overall widget height
          - i. Example: value with font size 25% occupies 1/4 of vertical widget space
      2. configurable number of decimal places for numeric float
      3. visibility (on/off)
    - v. Units
      1. overrides item units
      2. configurable font size (including auto), color (optional), position (relative to value), alignment
        - a. font size can be in % (see font size for Value)
    - vi. Time
      1. configurable font size (including auto), color (optional), position, alignment
      2. visibility (on/off)
    - vii. Change indicator (on/off)
    - viii. Background color (optional)

Sample widget with fields explained:



More examples:





## Nonfunctional requirements

1. N/A

## Decisions made

1. No multiple values and no aggregations at this time.
2. Log item type not supported.
3. Services not supported.
4. No support for `{host:key.func(param)}` in Description for now.
5.  $\uparrow$  must be green.