ACC: Function nodata() to respect proxy availability

1.2

Summary

Currently trigger function nodata() does not take into account availability of proxies, therefore any unavailable proxy triggers tons of nodata() functions. It would be great if Zabbix could respect proxy availability when calculating nodata().

It is one of the most popular feature requests currently.

Zabbix acceptance

Zabbix must respect proxy availability and period of time of collected data on proxy side when evaluating trigger function nodata()

1. Proxy will report "proxy delay", i.e. difference between "current proxy time" and timestamp of the oldest unsent value
   a. A new internal check zabbix[proxy,<name>,delay] will return "proxy delay" + ("current server time" - "proxy lastaccess")
2. Trigger function nodata(sec, <strict>) will be extended to support new optional parameter "strict". It will be calculated using new algorithm:
   a. If item is not monitored by proxy or parameter "strict" is set
      i. **1**: same logic as it is now, if no data for a period of "sec" seconds
   b. If item is monitored by proxy and parameter "strict" is not set
      i. **1**: if no data for a period of time of "sec" + "proxy delay" + ("current server time" - "proxy lastaccess") seconds
   c. **0**: otherwise

Nonfunctional requirements

1. N/A

Use cases

1. I do not want to be spammed by nodata() triggers if corresponding proxy is down
2. I still want to be immediately informed about lack of data for some critical metrics having no data regardless of proxy availability
3. I want to have a way to monitor for how long data is delayed by a proxy

Decisions made

1. N/A

Open questions

1. How to calculate oldest unsent timestamp? Can this be done if we monitor older log files and/or data with older timestamps received from Zabbix Senders?
2. Is it ok that proxy discovery is available also to administrators?

Changes log

- 1.1
  - Removed support of internal item for discovery of proxies, out of scope