NAME

rrd-ldap – description of the LDAP server monitoring graphs

DESCRIPTION

The *ldap.xml* file in the **rrdmon** package describes a couple of data channels retrieved from the slapd server that help to assess the use of the server.

CONNECTIONS

Statistics about the number of connections and the rate at which new connections were established

connections
: The number of simultaneous LDAP connections to the server. Since the server kills idle connections, and clients choose servers at random, more or less the same numbers of clients contact each server. After an outage of a server, it takes some time for the balance to recover.

connection rate
: This is the rate at which connections are established. This is usually invisibly small except if a misbehaving client creates lots of connections.

OUTPUT

This graph shows the number of *entries sent* (blue) from the server and the number of kBs of data sent (*kbytes sent* violett). Since the average entry is about one third to one half of a kB, the violett graph is usually at about one third to half the blue area. This can change if a client retrieves the same large entry over and over again.

OPERATIONS

This graph shows the relative proportions of the types of LDAP operations. It should always be dominated by the *search* methods

bind
: The bind operation is used at the beginning of a connection. As connections are usually kept for quite some time with many searches sent over the same connection, bind operations hardly ever show up.

search
: Search operation are the bulk of all operations.

compare
: Compare operations are usually not used on leaf servers.

modify, *modrdn*, *add*, *delete*
: Only the LDAP replication performs modify operations, this should not

extended
: Extended operations are usually not used on leaf servers.

UPDATES

This graph concentrates on operations that modify the contents. Real *modify* operations are the most common modifying operations, thus they are displayed at one tenth scale.

SYSTEM LOAD

This graph shows the resources consumed by the LDAP server process. The blue area shows the size of the memory.

shared
: The size of the memory shared with other processes (dark blue)

memory
: The text size of the process (medium blue)

data
: The size of the data pages of the process (light blue)

slapd CPU
: The CPU time consumed by the **slapd**(8) process. This graph uses a scale of ms/s, i.e. a value of 1000 means that the process uses one complete CPU.

resident
: The resident portion of the memory of the slapd process.

LDAP RESPONSE TIMES

The monitor tries to measure the time for some typical search oepration. These values should only be used as a relative measure as they can vary significantly for different types of queries.

connect
: Average time in milliseconds it takes for a connection to be established. This does not include any network delays. It shows how busy the kernel is handling new connections.

bind
: time in milliseconds needed to bind to the server. This is usually not so important as a client usually keeps an established and bound connection around for quite some time.

search
: The time needed to perform a search in microseconds.

SEE ALSO

rrdsetup(8), **rrdupdate**(8),

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