

Exploring the Depths of Zabbix Integration

Zabbix Conference 2017
Riga, Latvia

whoami



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Danube Cloud



- Software for managing cloud datacenters
- Open source
- Focused on the sysadmin job
- Based on SmartOS with ZFS, KVM, zones
- Integrated Zabbix...

Danube Cloud + Zabbix



Demo time!

Zabbix API from developer's perspective



DANUBE CLOUD
Datacenter delivered

- Historical perspective
- Insights into the DB model
- Uses JSON-RPC 2.0
- Good documentation + examples
- Used by the Zabbix frontend

Retrieving users

Retrieve all of the configured users.

Request:

```
{  
    "jsonrpc": "2.0",  
    "method": "user.get",  
    "params": {  
        "output": "extend"  
    },  
    "auth": "038e1d7b1735c6a5436ee9eae095879e",  
    "id": 1  
}
```

Response:

```
{  
    "jsonrpc": "2.0",  
    "result": [  
        {  
            "userid": "1",  
            "alias": "Admin",  
            "name": "Zabbix",  
            "surname": "Administrator",  
            "url": "",  
            "autologin": "1",  
            "lastaccess": 1514796422,  
            "lastchange": 1514796422,  
            "createoptions": {}  
        }  
    ]  
}
```

Zabbix API from developer's perspective



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al mon01.* -1d dano @ 9:21:11

161453 **high** [mon01.my.erigones.com](#) ntpd is not running 0h 0m 58s
Latest data: [Number of running processes \\$1](#)
Event: 161453 2017-09-09 09:20:13 **OK**
Event: 161451 2017-09-09 09:15:13 **PROBLEM ACK**
* 2017-09-09 09:18:01: [miroslav.bagljas@erigones.com](#): checking out the issue
* 2017-09-09 09:16:13: [daniel.kontsek@erigones.com](#): Zabbix Conference 2017
* 2017-09-09 09:15:48: [daniel.kontsek@erigones.com](#): I've disabled the service manually

1 issues are shown.
Hosts: [mon01.my.erigones.com](#)
Time period: 2017-09-08 09:21:11 – 2017-09-09 09:21:11 dunajko @ 9:21:11

Last 20 issues						
Host	Issue	Last change	Age	Info	Ack	Actions
mon01.my.erigones.com	ntpd is not running	2017-09-09 09:15:13	4m 2s	Yes 3	7	
[REDACTED]	Free disk space is less than 15% on volume C					
[REDACTED]	Free disk space is less than 20% on volume C					
		Time	User	Message		
		2017-09-09 09:18:01	ludolph (Ludolph Erigones)	miroslav.bagljas@erigones.com: checking out the issue		
		2017-09-09 09:16:13	ludolph (Ludolph Erigones)	daniel.kontsek@erigones.com: Zabbix Conference 2017		
		2017-09-09 09:15:48	ludolph (Ludolph Erigones)	daniel.kontsek@erigones.com: I've disabled the service manually		

Zabbix API used in your code



- Many client libraries
 - zabbix-api-erigones
- Async IO
- Performance / scalability
- Race conditions
- Graphs

```
"""
This is a port of the ruby zabbix api found here:
http://trac.red-tux.net/browser/ruby/api/zbx_api.rb

LGPL 2.1    http://www.gnu.org/licenses/old-licenses/lgpl-2.1.html

Zabbix API Python Library.
Original Ruby Library is Copyright (C) 2009 Andrew Nelson nelsonab(at)red-
Python Library is Copyright (C) 2009 Brett Lenz brett.lenz(at)gmail(dot)
                                         Copyright (C) 2014-2015 https://github.com/gescheit scri
                                         Copyright (C) 2013-2017 Erigones, s. r. o. erigones(at)e
...
NOTES: The API requires Zabbix 1.8 or later.
"""

class ZabbixAPI(object):
    """
    Login and access any Zabbix API method.
    """

    QUERY_EXTEND = 'extend'
    QUERY_COUNT = 'count'

    SORT_ASC = 'ASC'
    SORT_DESC = 'DESC'

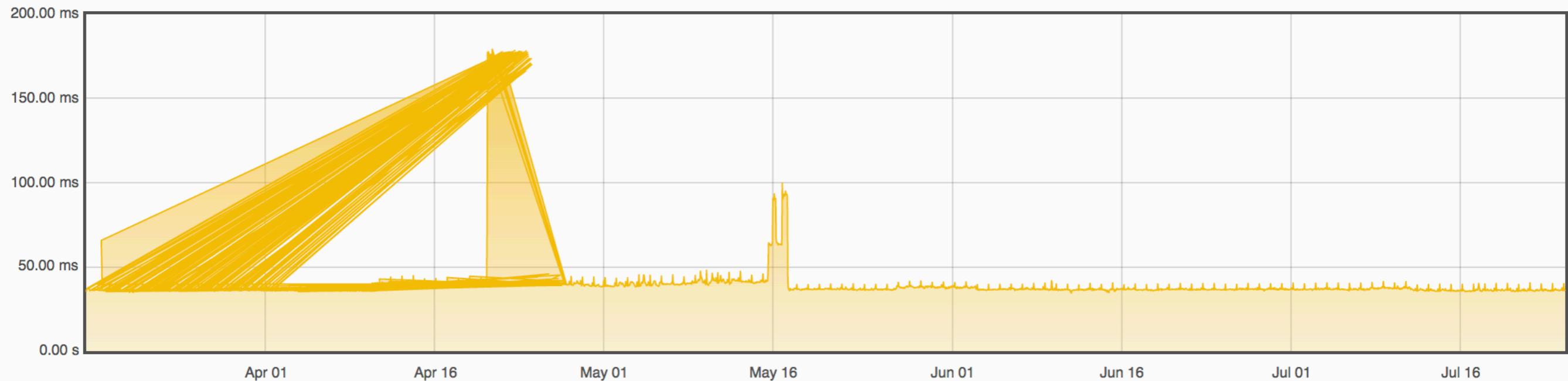
    def __init__(self, server='http://localhost/zabbix', user=None, password=None,
                 relogin_interval=30, r_query_len=10, ssl_verify=True):
```

Zabbix API used in your code

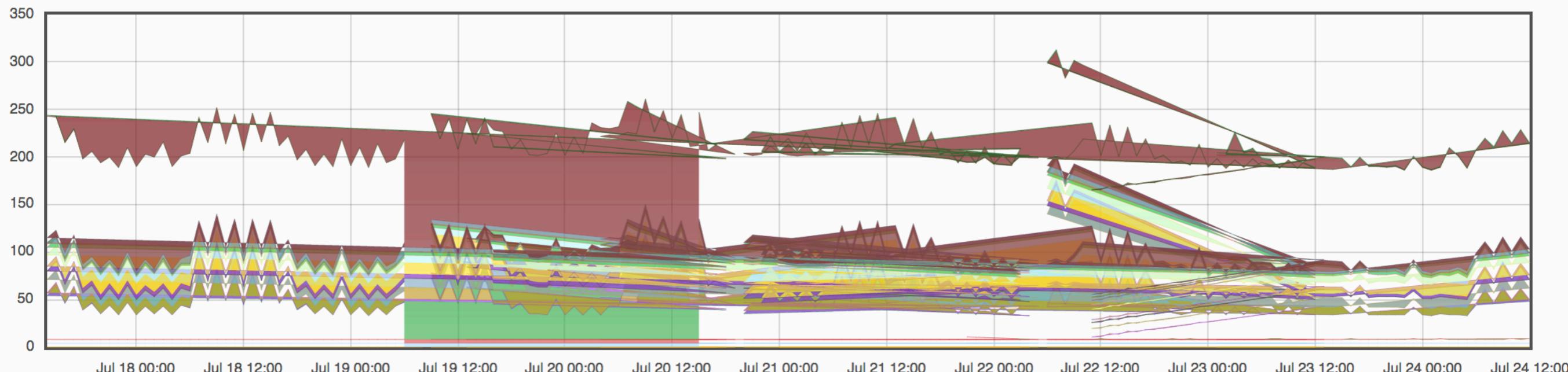


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Datacenter delivered

ⓘ Total amount of time spent in CPU run queue by the VM.



ⓘ CPU consumed by each virtual machine on the compute node.

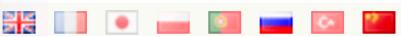


Zabbix API is great!

Use it!



ZABBIX Zabbix Documentation 3.4
1.8 2.0 2.2 2.4 3.0 3.2 3.4



Zabbix documentation

└ Zabbix Manual
└ 1. Introduction
└ 2. Definitions
└ 3. Zabbix processes
└ 4. Installation
└ 5. Quickstart
└ 6. Zabbix appliance
└ 7. Configuration
└ 8. Service monitoring
└ 9. Web monitoring
└ 10. Virtual machine monitoring
└ 11. Maintenance
└ 12. Regular expressions
└ 13. Event acknowledgment
└ 14. Configuration export/import
└ 15. Discovery
└ 16. Distributed monitoring
└ 17. Encryption
└ 18. Web interface
└ 19. API
└ Method reference
└ Action
└ Alert
└ API info
└ Application
└ Configuration
└ Correlation
└ Dashboard
└ Discovered host
└ Discovered service
└ Discovery check
└ Discovery rule
└ Event
└ Graph
└ Graph item

Questions?

Table of Contents

└ Method reference
└ Monitoring
└ History
└ Trends
└ Events
└ Problems
└ Service monitoring
└ Configuration
└ Hosts and host groups
└ Items and applications
└ Triggers
└ Graphs
└ Templates
└ Export and import
└ Low-level discovery
└ Event correlation
└ Actions and alerts
└ Services
└ Dashboards
└ Screens
└ Maps
└ Web monitoring
└ Network discovery
└ Administration
└ Users
└ General
└ Proxies
└ Scripts
└ API information