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NEW AGENT 2 FEATURES IN ZABBIX 6.0 LTS

■ AIGARS KADIĶIS

Technical Support Engineer, Zabbix, Latvia



01

NEW AGENT 2 FEATURES IN ZABBIX 6.0 LTS

LEARN WHAT NEW METRICS AND OTHER FEATURES ARE IN
STORE FOR ZABBIX AGENT2 IN ZABBIX 6.0 LTS

WHAT IS ZABBIX AGENT

- ✓ Daemon which collects monitoring data
- ✓ Available on Windows and Unix-like systems
- ✓ Rich capabilities out from box
- ✓ Flexible communication-wise. Active/passive checks
- ✓ Control over update interval, scheduled checks



WHY AGENT 2?

- ✓ On the top of GO language. Gives us a platform to «code» less to accomplish more
- ✓ Items are integrated straight into the binary – do not need to create UserParameters to apply official solution
- ✓ Solve all known agent 1 problems



WHAT IS BETTER WITH AGENT 2?

- ✓ Check concurrency for active checks
- ✓ Persistent data storage
- ✓ Reduce the number of TCP connections
- ✓ HTTPS web site check out from box on windows
- ✓ Multiple parallel log file reading
- ✓ Out from box solution for different apps

CHECK CERTIFICATE

Item key:

```
web.certificate.get[hostname,<port>,<IP>]
```

Will report:

- ✔ X.509 fields
- ✔ Validation result
- ✔ Fingerprint field

Example:

```
web.certificate.get[blog.zabbix.com,443]
```



MQTT MONITORING - IOT

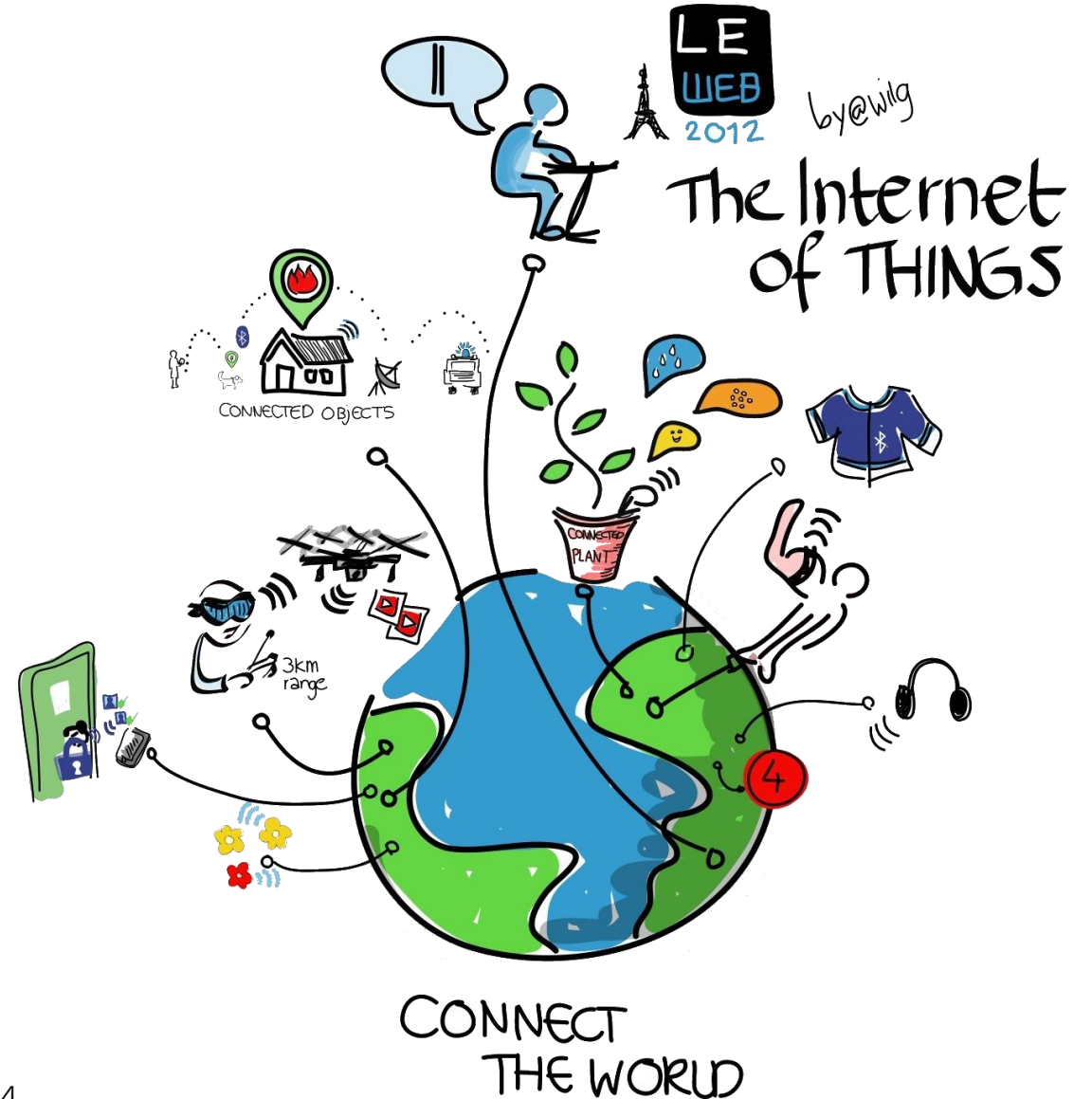
- ✔ Listen on topics:

```
mqtt.get["tcp://host:1883", "path/to/topic"]
```

```
mqtt.get["tcp://host:1883", "path/to/#"]
```

Reminder:

- ✔ Zabbix agent 2 is official supported on Raspberry Pi
- ✔ Ubuntu ARM64 is officially supported on Raspberry Pi 4 which allows to run official Zabbix docker containers



OUT FROM BOX DB MONITORING



ORACLE



SYSTEMD MONITORING

```
systemd.unit.discovery[<type>]
```

```
systemd.unit.get[unit name,<interface>]
```

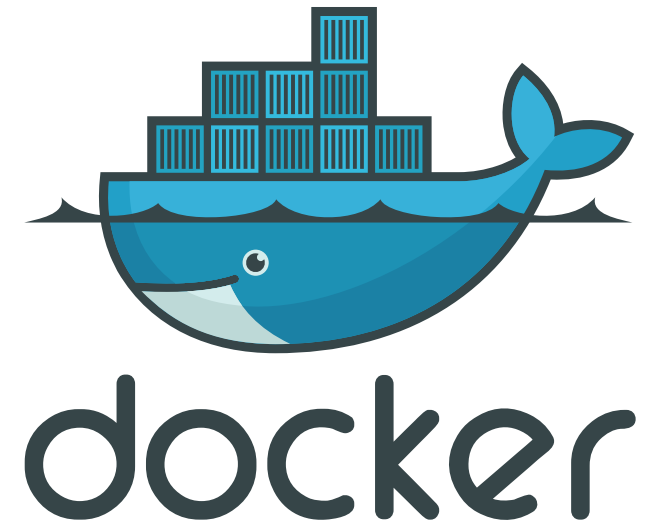
```
systemd.unit.info[unit name,<property>,<interface>]
```

With the framework provided we can use trigger rules like:

- ☑ If service is scheduled at system bootup but not running right now, then alert
- ☑ If service is not scheduled at startup but running right now, notify us that we forgot it to enable at startup

DOCKER MONITORING

- ✓ Discover all containers automatically
- ✓ Per container monitoring:
 - ✓ CPU
 - ✓ Memory
 - ✓ Network



ADDITIONAL APPLICATION AGENT 2 COVERS

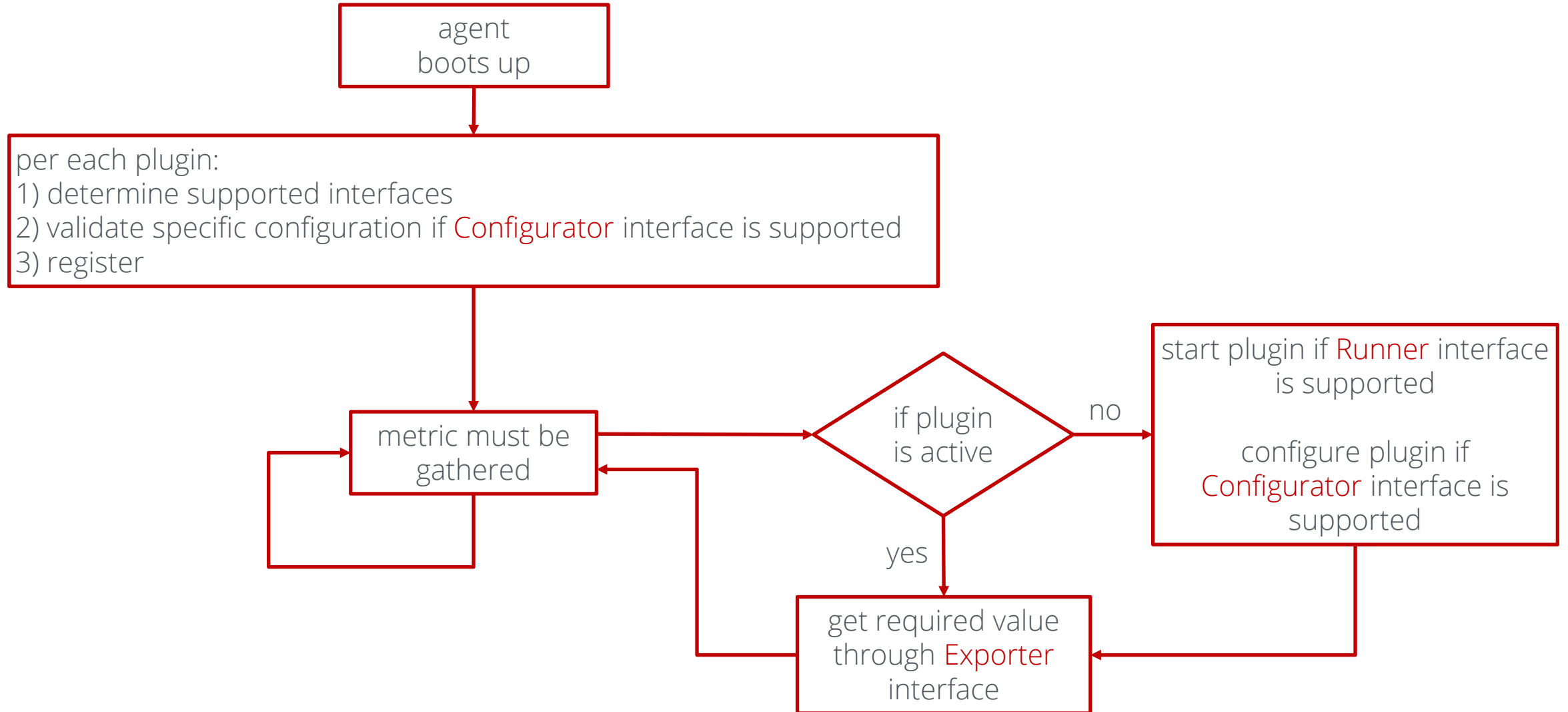
- ✓ Ceph
- ✓ Memcached
- ✓ Smart - Self-Monitoring, Analysis and Reporting Technology

02

PLUGIN SYSTEM FOR AGENT 2

HOW INTERNAL / EXTERNAL PLUGIN SYSTEM WORKS

HOW AGENT 2 **PLUGIN SYSTEM** WORKS



LOADABLE PLUGINS

- ✔ External plugins are loadable on Zabbix agent 2 start, with no need to recompile the agent2
- ✔ Connects bidirectionally to the plugins using UNIX sockets on Linux and Named Pipes on Windows
- ✔ Backwards compatible with older plugins
- ✔ Plugin is deactivated if:
 - passive item key not used for 24h
 - active item is not in active check list
- ✔ Architecture remains the same as it was for the internal plugins
- ✔ Separate repository

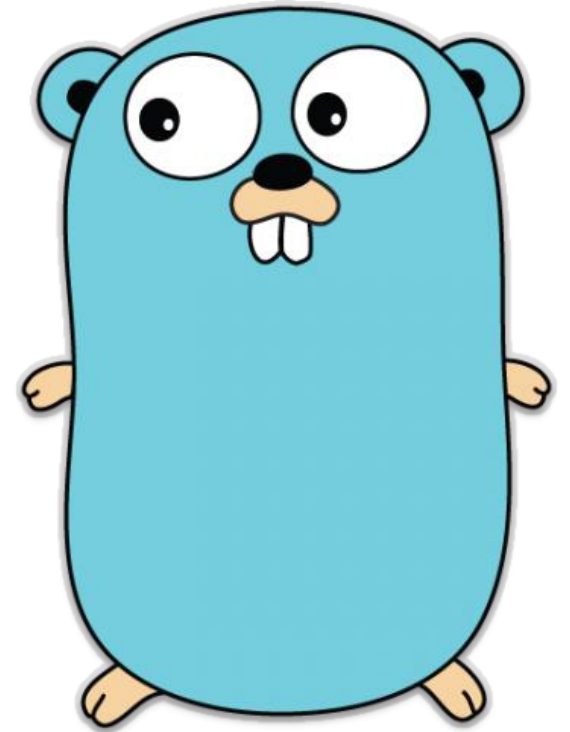
03

SUPPORTED PLATFORMS FOR AGENT 2

CAN WE USE AGENT 2 ON EVERY SYSTEM?

AGENT 2 AVAILABLE

- ✓ RHEL/CentOS 6, 7, 8,
- ✓ SLES 15 SP1+
- ✓ Debian 9, 10, 11, Ubuntu 18.04, 20.04
- ✓ Raspberry Pi OS, Ubuntu ARM64
- ✓ Windows 7 and later, Windows Server 2008 R2 and later



04

NEW AGENT KEYS

BRAND NEW FUNCTIONALITY
FOR AGENT 1 AND AGENT 2

AGENT VARIANT

- ✓ agent.hostmetadata – obtains the live metadata
- ✓ agent.variant

Return 1 for C agent – Zabbix agent

Return 2 for Go agent – Zabbix agent 2

FILE PROPERTIES

- ✓ `vfs.file.permissions` - returns 4-digit string containing octal number with Unix permissions
- ✓ `vfs.file.owner` - returns the user ownership of file
- ✓ `vfs.file.get` - returns information about a file. Like with 'stat' command
- ✓ `vfs.dir.get` – get information about directories and files
- ✓ `vfs.file.cksum` – now with md5 and sha256
- ✓ `vfs.file.size` – measure bytes or how many lines are in file

VFS.DIR.GET ON WINDOWS

```
[{
  "basename": "input.json",
  "pathname": "c:\\app1\\temp\\input.json",
  "dirname": "c:\\app1\\temp",
  "type": "file",
  "user": "AKADIKIS-840-G2\\aigars",
  "SID": "S-1-5-21-341453538-698488186-381249278-1001",
  "size": 2506752,
  "time": {
    "access": "2021-11-03T09:19:42.5662347+02:00",
    "modify": "2020-12-21T16:00:46+02:00",
    "change": "2020-12-29T12:20:10.0104822+02:00"
  },
  "timestamp": {
    "access": 1635923982,
    "modify": 1608559246,
    "change": 1609237210
  }
}]
```

VFS.FILE.GET ON LINUX

```
{
    "basename": "passwd",
    "pathname": "/etc/passwd",
    "dirname": "/etc",
    "type": "file",
    "user": "root",
    "group": "root",
    "permissions": "0644",
    "uid": 0,
    "gid": 0,
    "size": 3348,
    "time": {
        "access": "2021-11-03T09:27:21+0200",
        "modify": "2021-10-24T13:18:18+0300",
        "change": "2021-10-24T13:18:18+0300"
    },
    "timestamp": {
        "access": 1635924441,
        "modify": 1635070698,
        "change": 1635070698
    }
}
```

MORE DIMENSIONS FOR DISCOVERY KEYS

- ⊙ `vfs.fs.discovery` - will have now + `{#FSLABEL}`
- ⊙ `vfs.fs.get` - will have now + `{#FSLABEL}`

```
[{  
    "{#FSNAME}": "C:",  
    "{#FSTYPE}": "NTFS",  
    "{#FSLABEL}": "System",  
    "{#FSDRIVETYPE}": "fixed"  
}]
```



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Thank you!

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