

# System & Netzwerk Monitoring mit Icinga

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# Introduction

- Linux & Monitoring
- Augsburg / Salzburg

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# Agenda

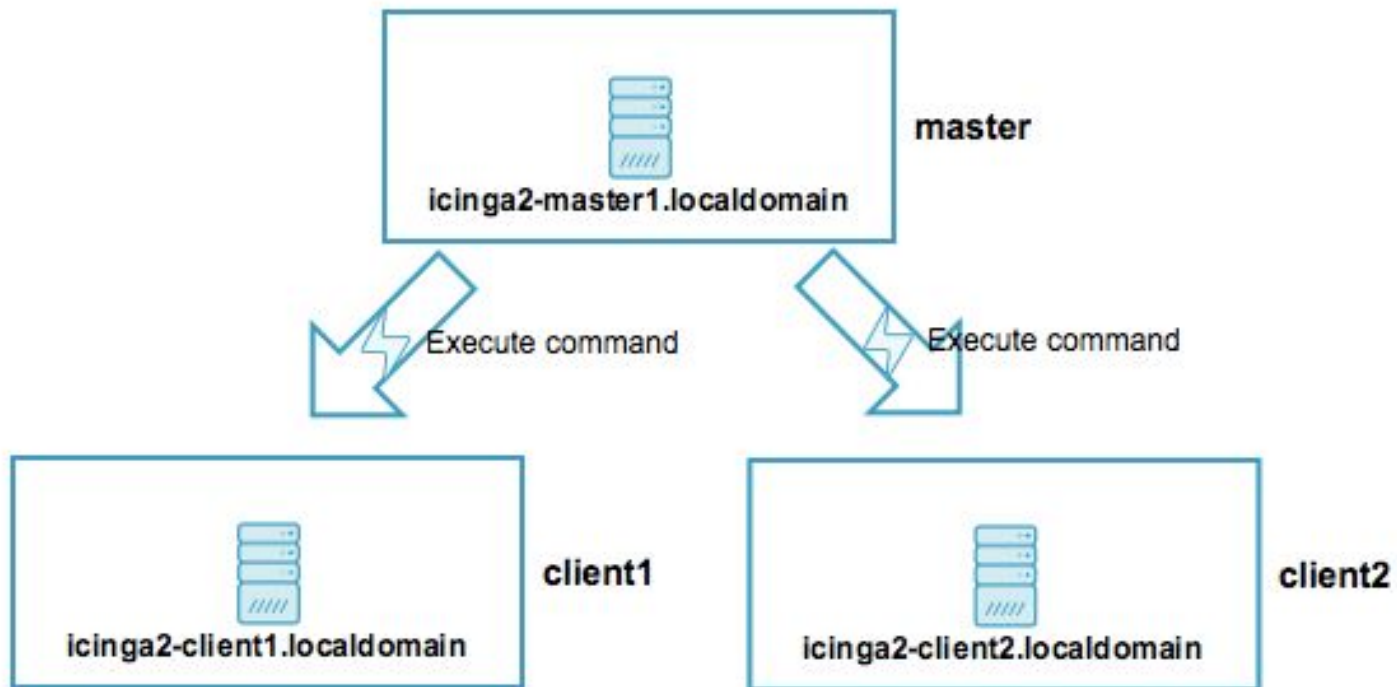
- Icinga Basics
- Architecture
- Plugins
- Configuration
- Visualization
  - Web UI & Modules
  - Metrics
- Escalation
- Getting Started



# Icinga Basics

- Open Source Monitoring Framework
- Monitoring
  - Service (Ping, IMAP, HTTP, ...)
  - System (OS, Services, Ressources, Hardware)
  - Network Devices (SNMP)
  - Sensors (Temperature, Humidity)
- Modular
  - Web Modules
  - Plugins
  - Notifications
- High Availability
- Enterprise ready (SLA report feature coming soon)

# Server Client Architecture



# Icinga Installation

```
[root@monitor ~]# yum install icinga2 monitoring-plugins
```

```
[root@monitor ~]# icinga2 feature enable api
```

Enabling feature api. Make sure to restart Icinga 2 for these changes to take effect.

```
[root@monitor ~]# icinga2 feature list
```

**Disabled features:** command compatlog debuglog elasticsearch gelf graphite livestatus opentsdb perfddata statusdata syslog

Enabled features: api checker ido-mysql influxdb mainlog notification

# Icinga Agents

- Certificate based Authentication
- Communication TLS encrypted
- Configuration Sync

```
root@server1:~# icinga2 feature list
```

```
Disabled features: command compatlog debuglog elasticsearch gelf graphite icingastatus influxdb  
livestatus notification opentsdb perfddata statusdata syslog
```

```
Enabled features: api checker mainlog
```

# Plugins

```
root@server1:~# apt-get install monitoring-plugins
```

```
root@server1:~# ls -l /usr/lib/nagios/plugins
```

- check\_disk
- check\_http
- check\_load
- check\_ssh
- ...



# https://exchange.icinga.com

The screenshot shows a web browser window with the URL <https://exchange.icinga.com>. The page features a dark blue header with the Icinga Exchange logo on the left and navigation links for "About", "Create Project", "Login", and "Register" on the right. The main content area has a large white text overlay: "Extend your Icinga monitoring system with plugins, addons, modules and more". Below this is a search bar with the placeholder text "Search projects ..." and a green "Search" button. The bottom section is titled "Featured Projects" and displays three project cards: "check\_mailbox" by ozzi- (No ratings yet), "Business Process" by icinga (5 stars), and "handle\_TD\_incident - an interface to TOP..." by martin\_fuerstenau (No ratings yet).




Icinga Exchange

About Create Project Login Register

## Extend your Icinga monitoring system with plugins, addons, modules and more

Search projects ... Search

### Featured Projects

-  **check\_mailbox**  
by ozzi-  
No ratings yet  
Icinga 2 - IMAP and POP3 mailbox check command
-  **Business Process**  
by icinga  
★★★★★  
Create top-level views of your applications in a graphical
-  **handle\_TD\_incident - an interface to TOP...**  
by martin\_fuerstenau  
No ratings yet  
Open Incidents in Topdesk

# Writing Plugins

- Any Language
- Exit Codes (0, 1, 2, 3)
- Active / Passive
- Performance Data (sensors, counter)

**DEMO**

# Web UI Modules

- Maps
- Dashing
- X.509

**DEMO**



### Certificates by CA



Let's Encrypt Authority X3	26
COMODO RSA Domain Validation Secure Server CA	20
DigiCert Global Root G2	4
Thawte TLS RSA CA G1	4
COMODO RSA Organization Validation Secure Server CA	3

### Certificates by Duration



3 Months	26
10 Years	16
3 Years	9
2 Years	6
1 Years	4

### Key Strength



RSA 2048 bits	91
RSA 4096 bits	35
RSA 1024 bits	1

### Signature Algorithms



SHA256 with RSA	108
SHA1 with RSA	12
SHA384 with RSA	5
SHA512 with RSA	2

# Escalation / Notification

- E-Mail
- SMS / Messenger
- Voice
- PagerDuty & Co.
- Incident Management

# Getting Started

- <https://community.icinga.com>
- <https://icinga.com/docs/icinga2/latest/>
- <https://github.com/Icinga/icinga-vagrant>
  - Install Vagrant & Virtualbox
  - git clone ...
  - vagrant up
- Meetups



**Questions?**