



# VERTEILTES MONITORING

VERTEILTES MONITORING MIT MOD GEARMAN

CHRISTOPHER KREFT  
(SECTOR NORD AG)



# KOMPONENTEN

# Gearman



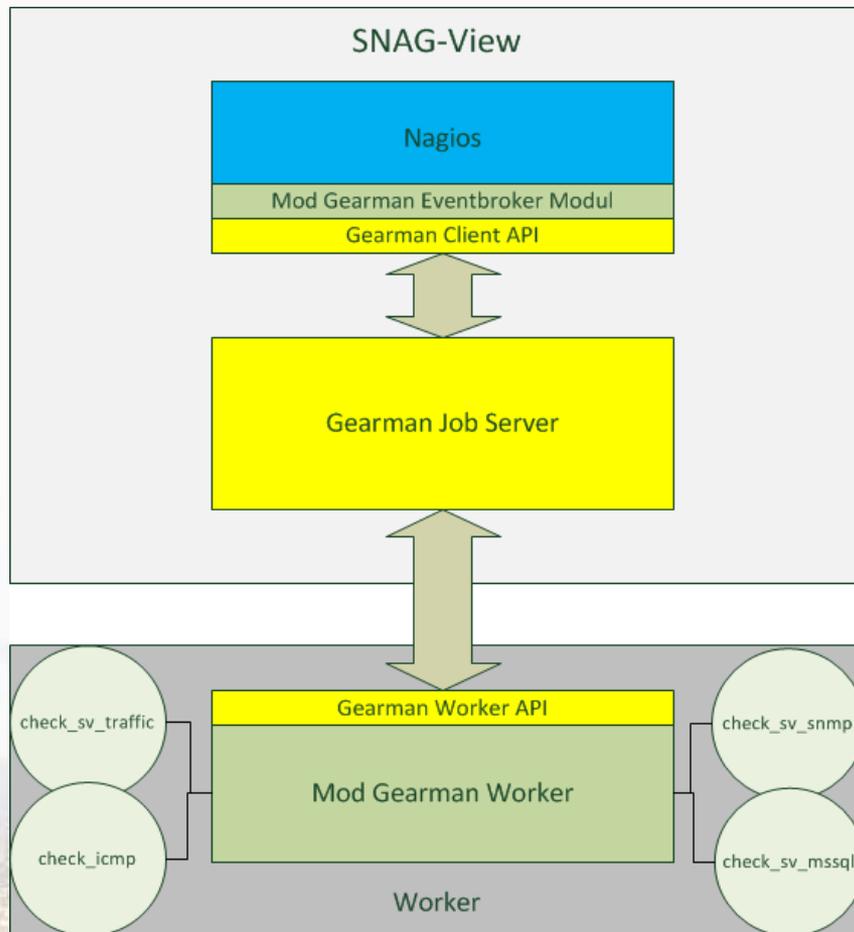
- Generisches Applikationsframework
- Verteilt Arbeit auf andere Systeme
- Stellt API bereit
- Nutzt Gearman
- Verteilt Nagios Checks



# INTEGRATION

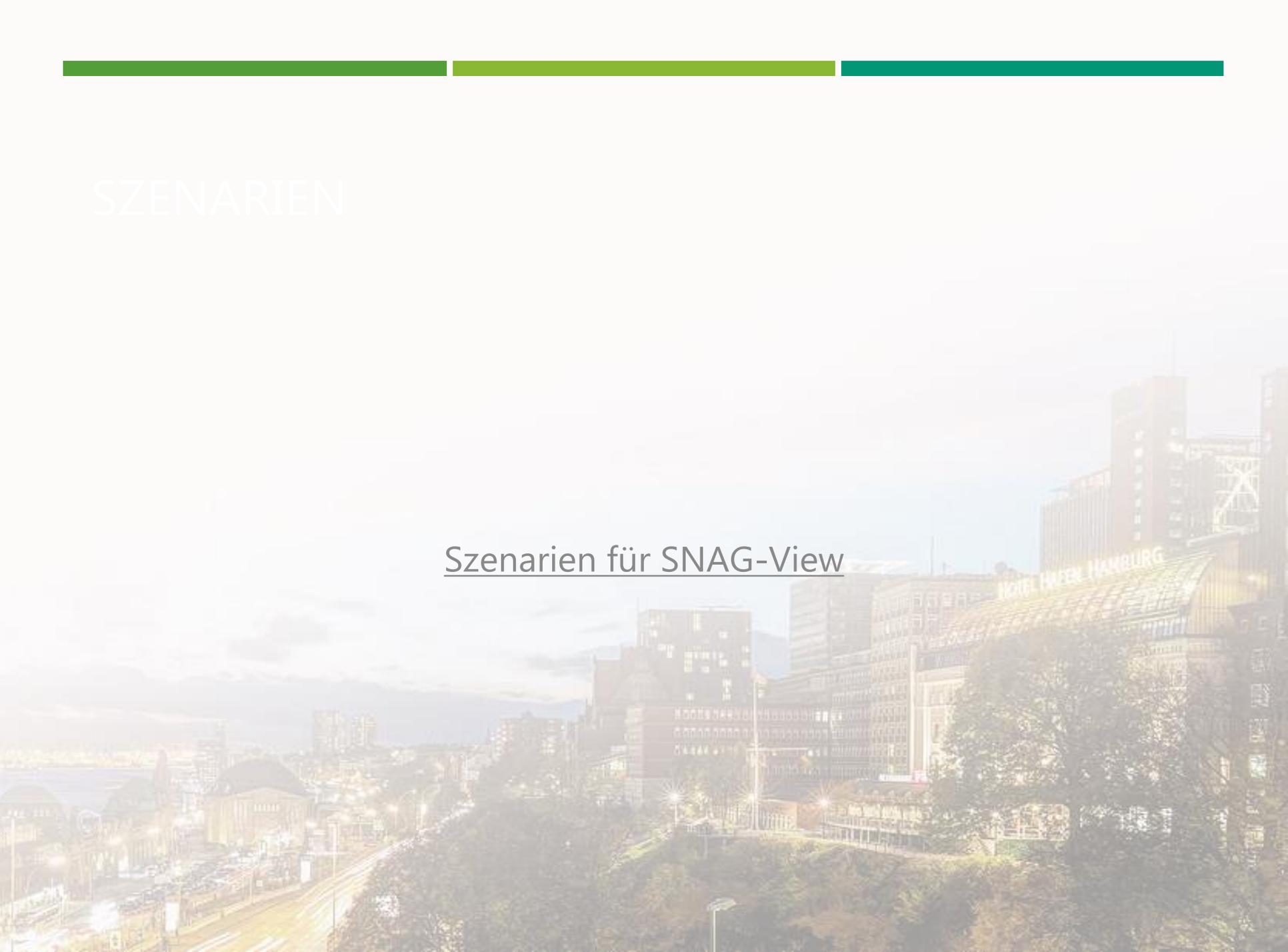
INTEGRATION VON MOD GEARMAN IN SNAG-VIEW

A panoramic view of a city at dusk or dawn, featuring modern buildings, a large stadium with a glass roof, and a road with light trails. The sky is hazy and blue.

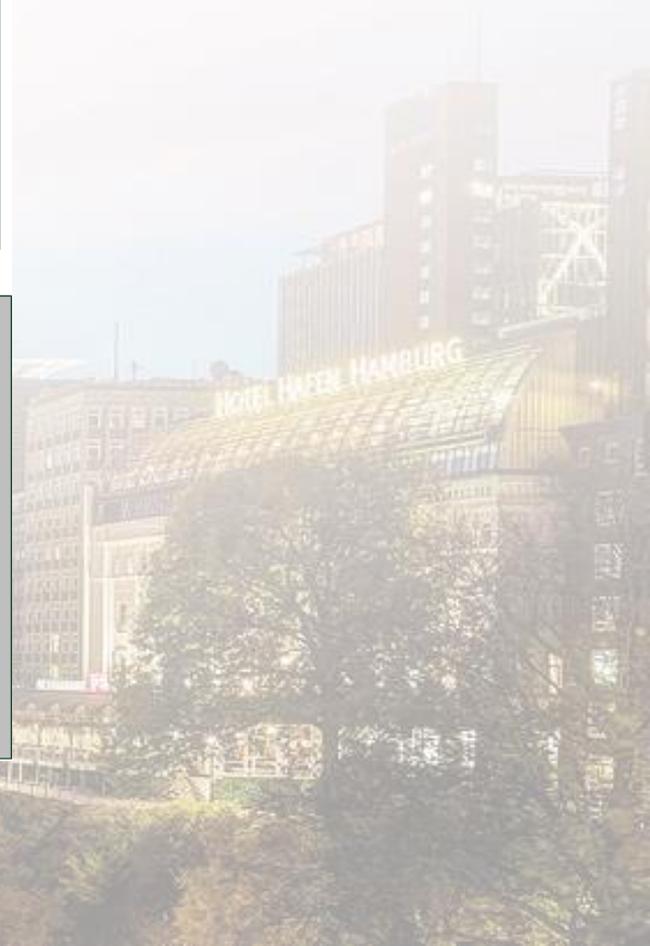
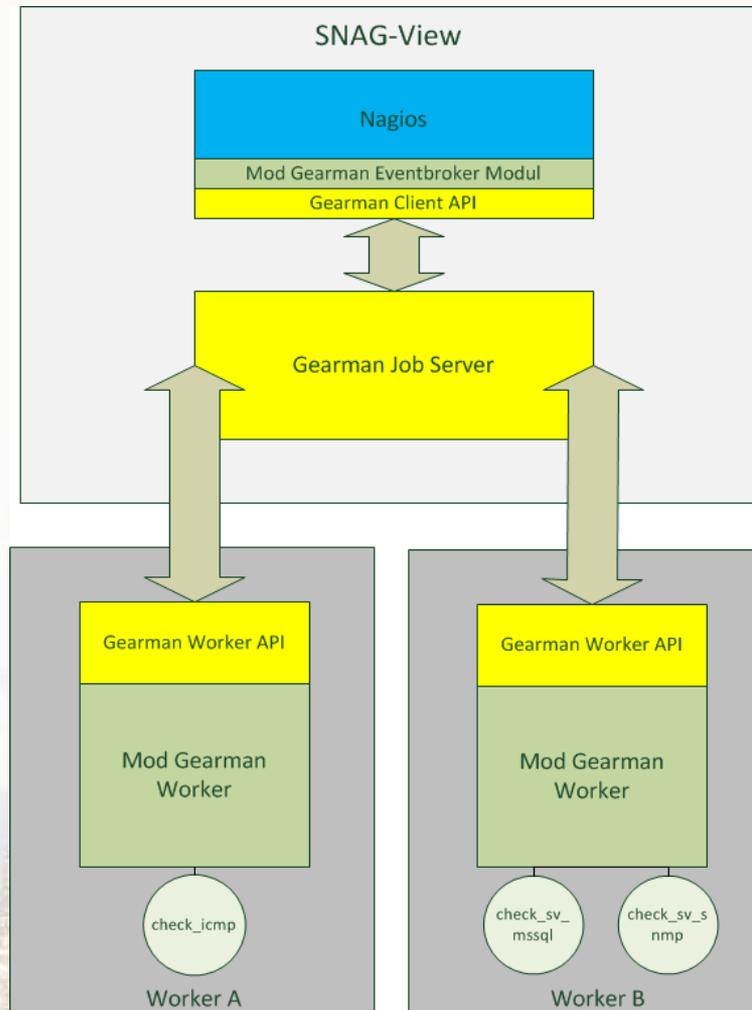


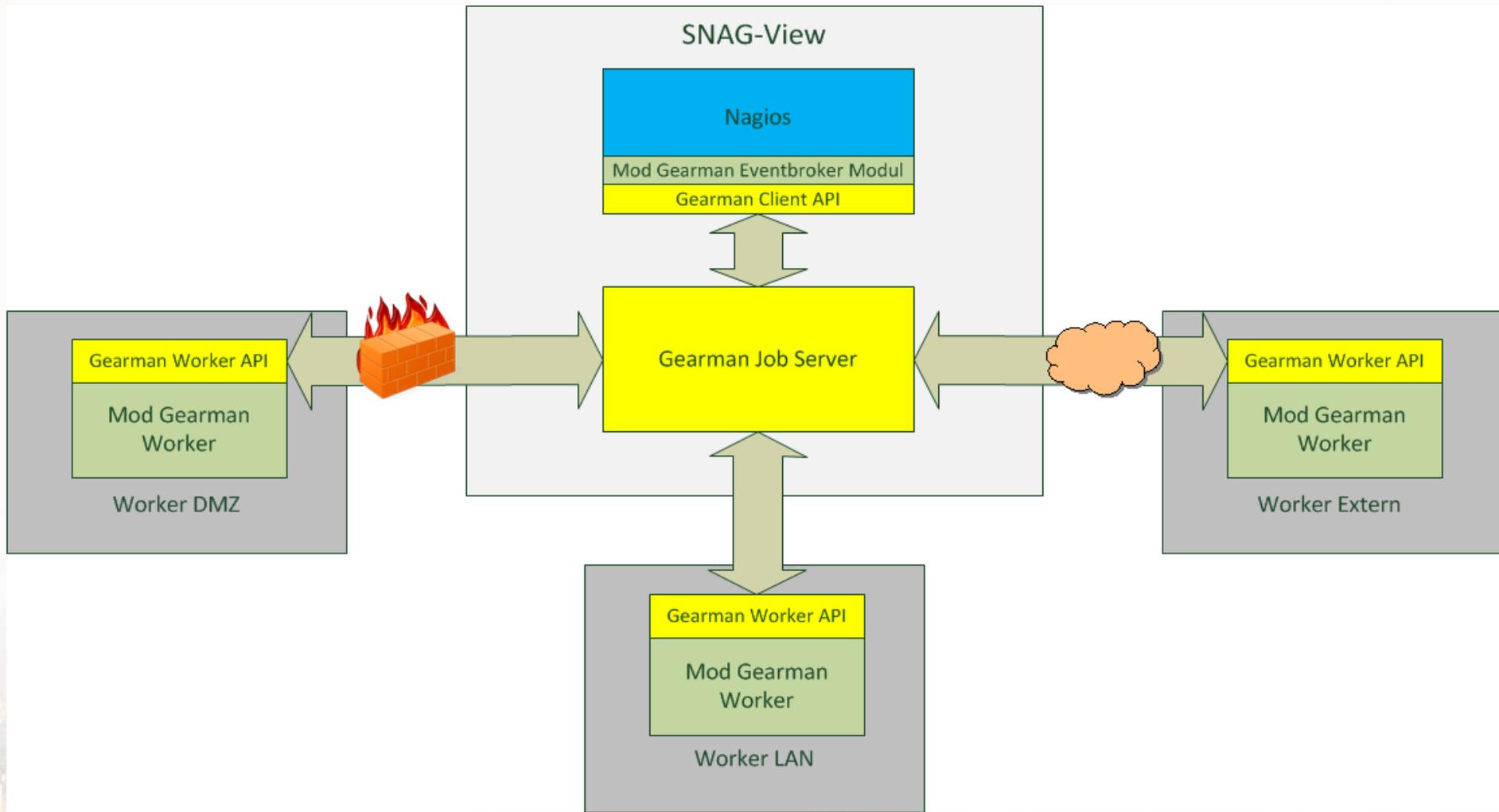


# SZENARIEN



## Szenarien für SNAG-View







# MOD GEARMAN - VORTEILE

- Entlastung des Hauptsystems
  - Flexibilität
  - Ausfallsicherheit\*
  - Zentrale Konfiguration
- 



# MOD GEARMAN - ANFORDERUNGEN

- Pro Queue zwei Worker
  - Zusätzliche Lizenzen
  - Hardware / VM als Worker
- 



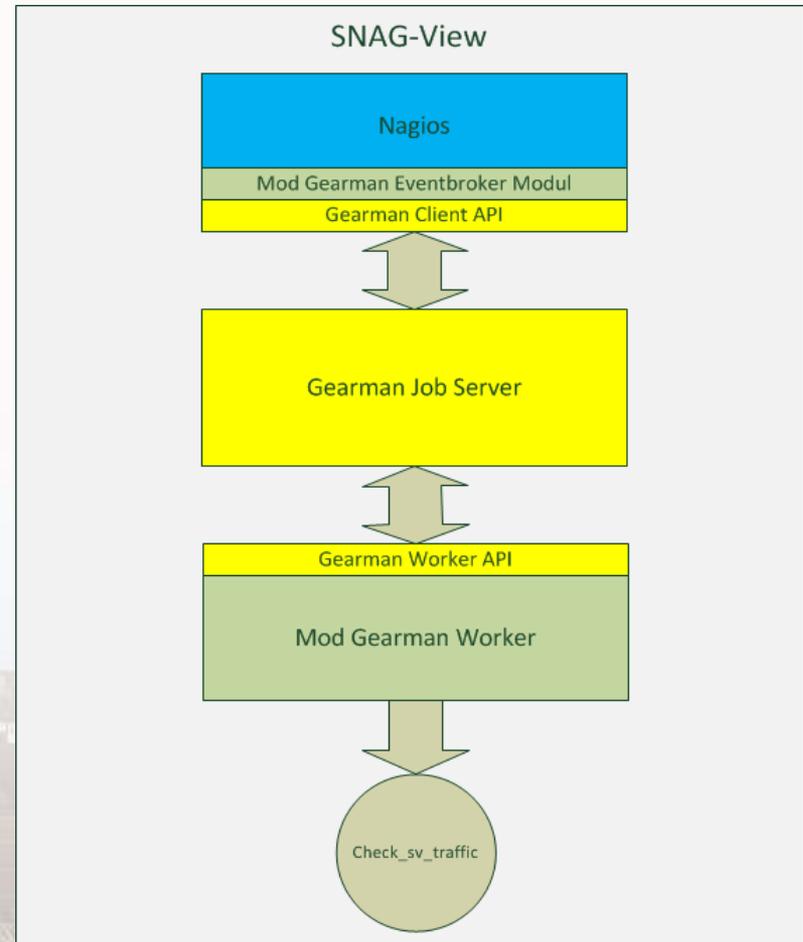
PRAXIS

Mod Gearman in der Praxis



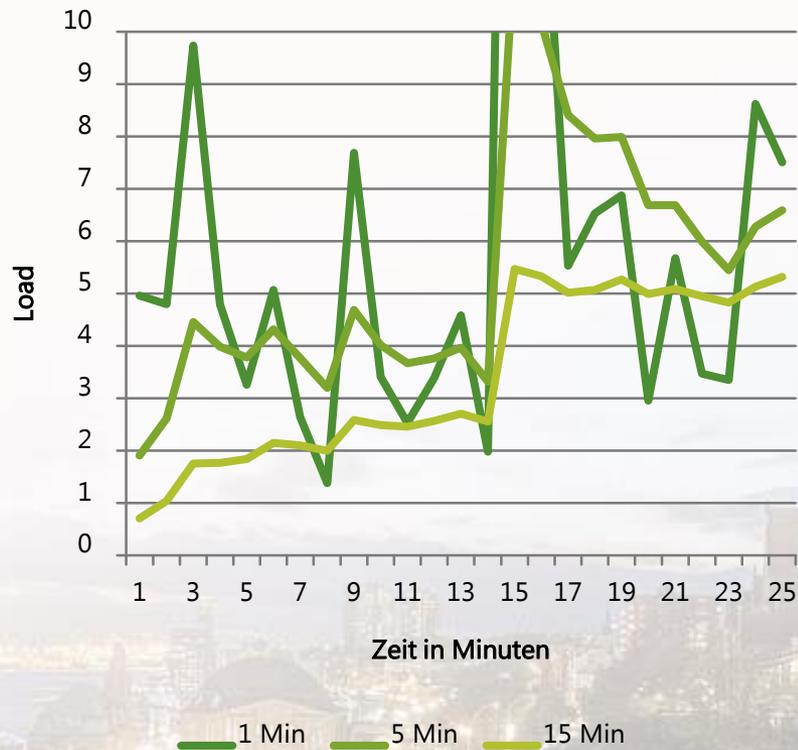
# PRAXIS - TEST

- 100 Hosts
- >1000 Servicechecks
- Traffic Agent (PHP Check)
- Checkintervall 1 Minute

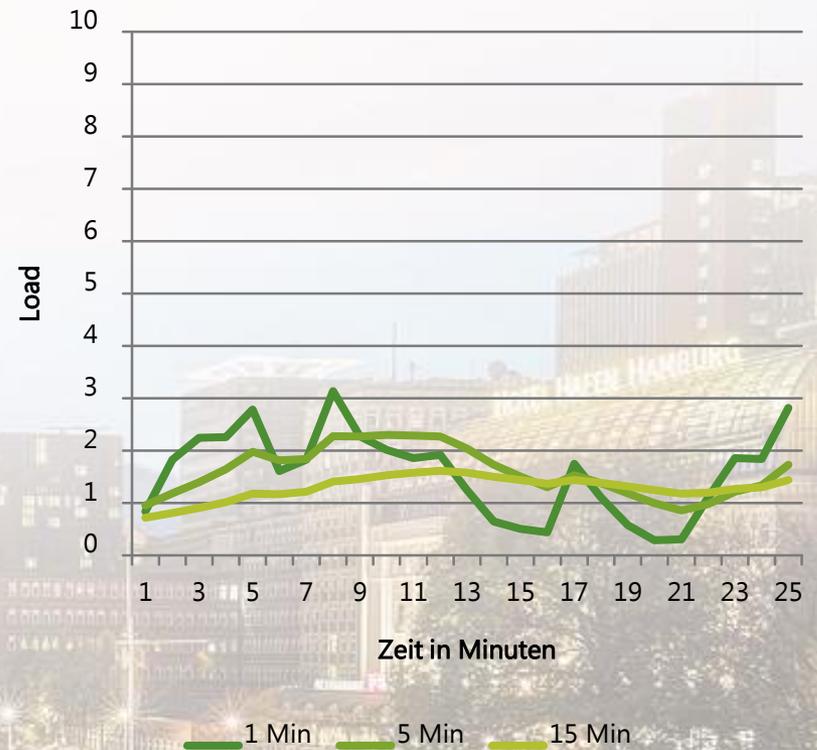


# PRAXIS - BENCHMARK

## Ohne Mod Gearman

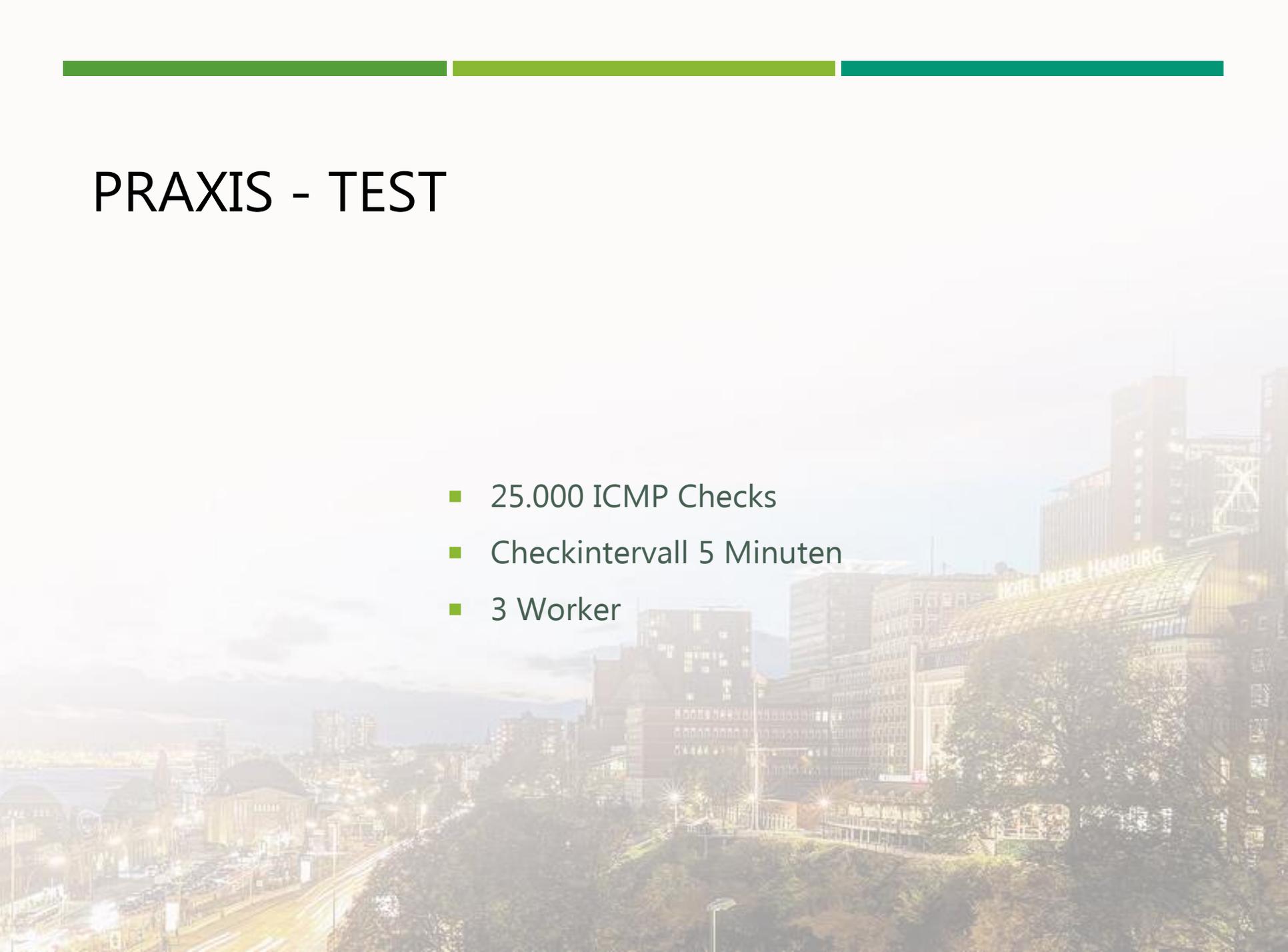


## Mit Mod Gearman





# PRAXIS - TEST

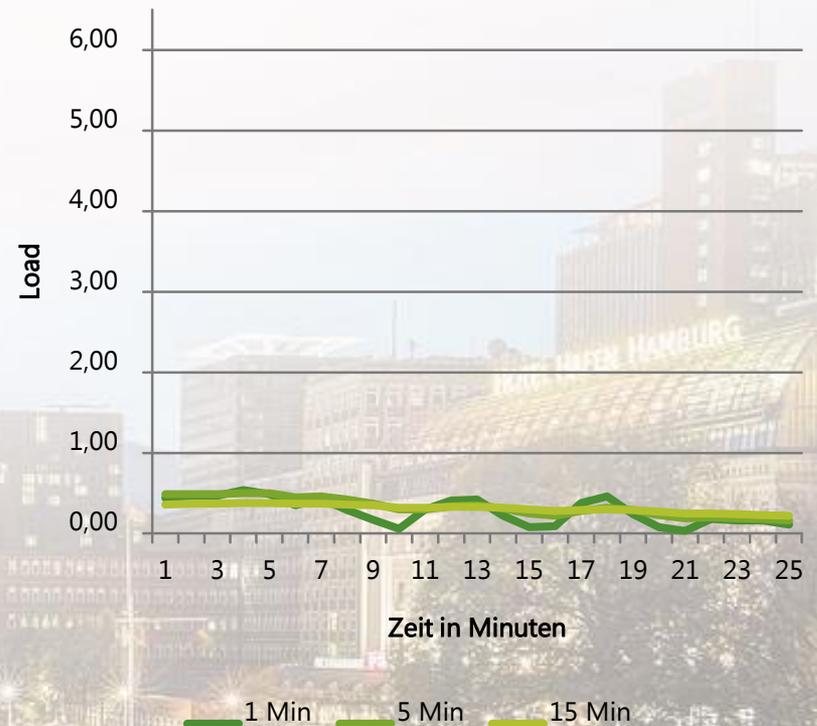
- 25.000 ICMP Checks
  - Checkintervall 5 Minuten
  - 3 Worker
- 

# PRAXIS - BENCHMARK

## Ohne Mod Gearman



## Mit Mod Gearman





# WERKZEUGE

## Werkzeuge für Mod Gearman



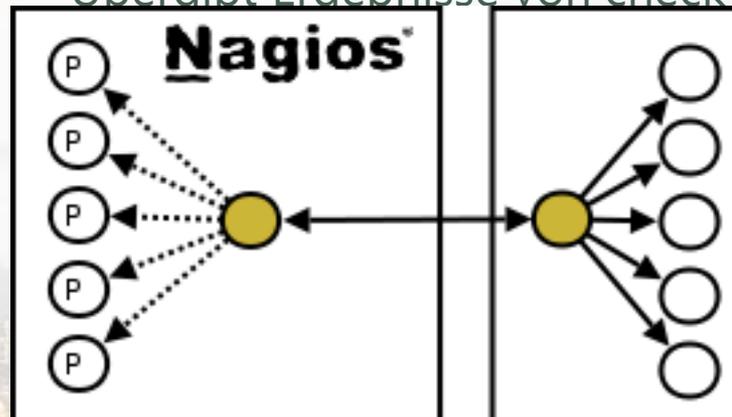
# WERKZEUG – SEND\_GEARMAN

- Übermittelt passive Checkergebnisse
- Ersatz für NSCA

```
./send_gearman --server=<job server> --host="<hostname>" --  
service="<service>" --message="message"
```

# WERKZEUG – SEND\_MULTI

- Übergibt Ergebnisse von check\_multi



# WERKZEUG – CHECK\_GEARMAN

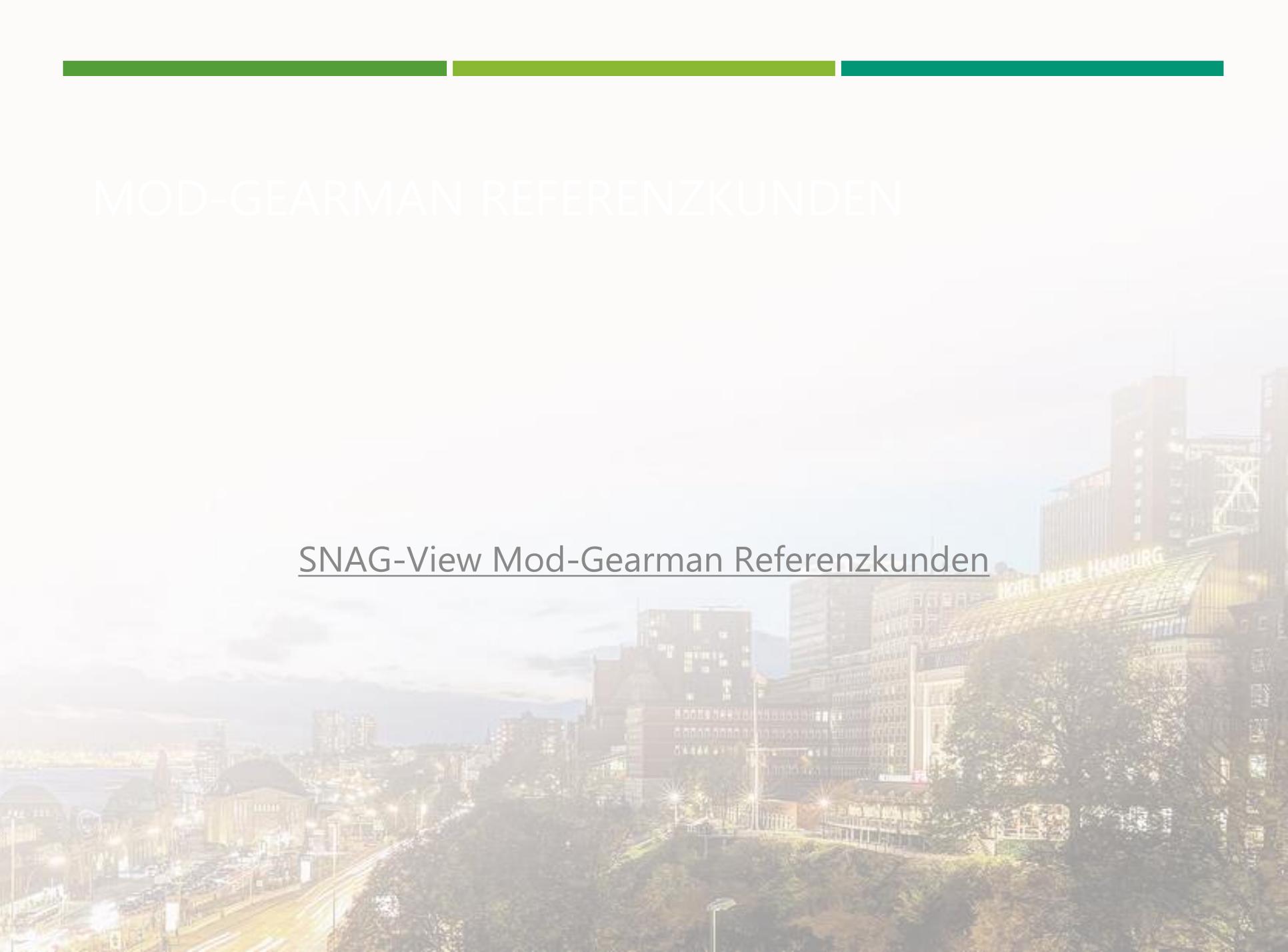
```
check_gearman -H localhost -q hostgroup_freiburg  
CRITICAL - Queue hostgroup_freiburg has 46 jobs without any worker.
```

```
check_gearman -H localhost  
OK - 0 jobs running and 0 jobs waiting. Version: 0.24|...
```



# MOD-GEARMAN REFERENZKUNDEN

SNAG-View Mod-Gearman Referenzkunden





# MOD-GEARMAN REFERENZKUNDEN

- CWS-boco Deutschland GmbH
  - HanseCom GmbH
  - QSC AG
  - Veolia Umweltservice GmbH
- 



# WEBOBERFLÄCHE

SNAG-View Mod-Gearman Weboberfläche

A background image of a cityscape at dusk or dawn, featuring various buildings and a prominent structure with a glass roof. The text 'HOTEL HILFEN HAMBURG' is visible on the right side of the image.

# ERZEUGUNG NEUER WORKER

sv\_mod\_gearman\_worker erstellen

Algemein groups settings

**Worker Name**  
Pflichtfeld  ⚙️

**Worker Alias**  ⚙️

**Worker Hostadresse**  
Pflichtfeld  ⚙️

**Dynamische Hostchecks ausführen**  Nein ⚙️

**Dynamische Servicechecks ausführen**  Nein ⚙️

**Eventhandler ausführen**  Nein ⚙️

# ERZEUGUNG NEUER WORKER

sv\_mod\_gearman\_worker erstellen

Allgemein **groups** settings

Hostgruppen

Verfügbar	Zugewiesen
<input type="text"/>	<input type="text"/>
ALL-HOSTS	DMZ
Gearman - Local	
Gearman - System	

Servicegruppen

Verfügbar	Zugewiesen
<input type="text"/>	<input type="text"/>
Gearman - Local	
Gearman - System	

Speichern

# ERZEUGUNG NEUER WORKER

sv\_mod\_gearman\_worker erstellen

Allgemein groups **settings**

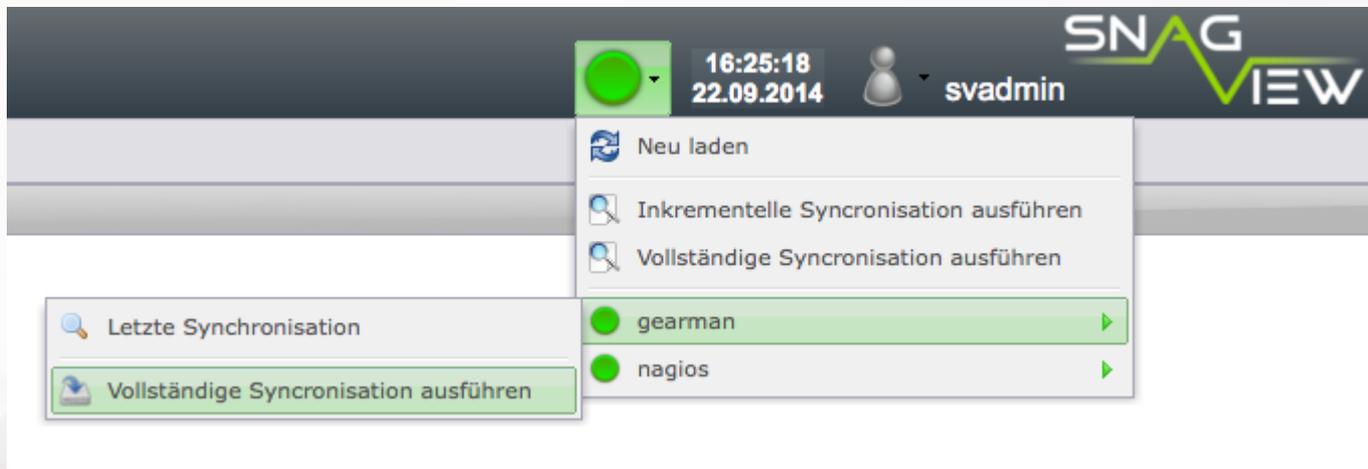
Min. Worker Prozesse	<input type="text" value="5"/>	⚙️
Max. Worker Prozesse	<input type="text" value="50"/>	⚙️
Spawn Rate	<input type="text" value="1"/>	⚙️
Idle Timeout	<input type="text" value="30"/>	⚙️
Max. Jobs	<input type="text" value="1000"/>	⚙️
Job Timeout	<input type="text" value="60"/>	⚙️
Max. Alter	<input type="text" value="0"/>	⚙️
Fork bei Ausführung	<input type="text" value="no"/>	⚙️
Load Limit 1min	<input type="text" value="0"/>	⚙️
Load Limit 5min	<input type="text" value="0"/>	⚙️
Load Limit 15min	<input type="text" value="0"/>	⚙️
Debug Log Modus	<input type="text" value="0"/>	⚙️
Debug Ergebnis	<input checked="" type="checkbox"/> Ja	⚙️

# ERZEUGUNG NEUER WORKER

 Fork bei Ausführung	<input type="text" value="no"/>	
 Bestimmt, ob für jeden check ein eigener Fork erzeugt werden soll. Dies erhöht die Last des Workers, kann aber bei Problemen mit unsauberen Nagios Plugins hilfreich sein. Standard: no	<input type="text"/>	
 Load Limit 5min	<input type="text" value="0"/>	
 Load Limit 15min	<input type="text" value="0"/>	
 Debug Log Modus	<input type="text" value="0"/>	
 Debug Ergebnis	<input checked="" type="checkbox"/> Ja	
 Timeout Returncode	<input type="text" value="2"/>	

 Speichern

# AUTOMATISCHE KONFIGURATIONSSYNCHRONISATION



The screenshot displays the SNAGVIEW web interface. At the top right, the logo "SNAGVIEW" is visible. The user interface shows a dark header bar with a green status indicator, the time "16:25:18" and date "22.09.2014", and the user name "svadmin". A dropdown menu is open, listing synchronization options: "Neu laden", "Inkrementelle Synchronisation ausführen", and "Vollständige Synchronisation ausführen". Below this, a separate menu shows "Letzte Synchronisation" and "Vollständige Synchronisation ausführen". A second dropdown menu is open, showing two entries: "gearman" and "nagios", both with green status indicators and right-pointing arrows.

16:25:18  
22.09.2014 svadmin

SNAGVIEW

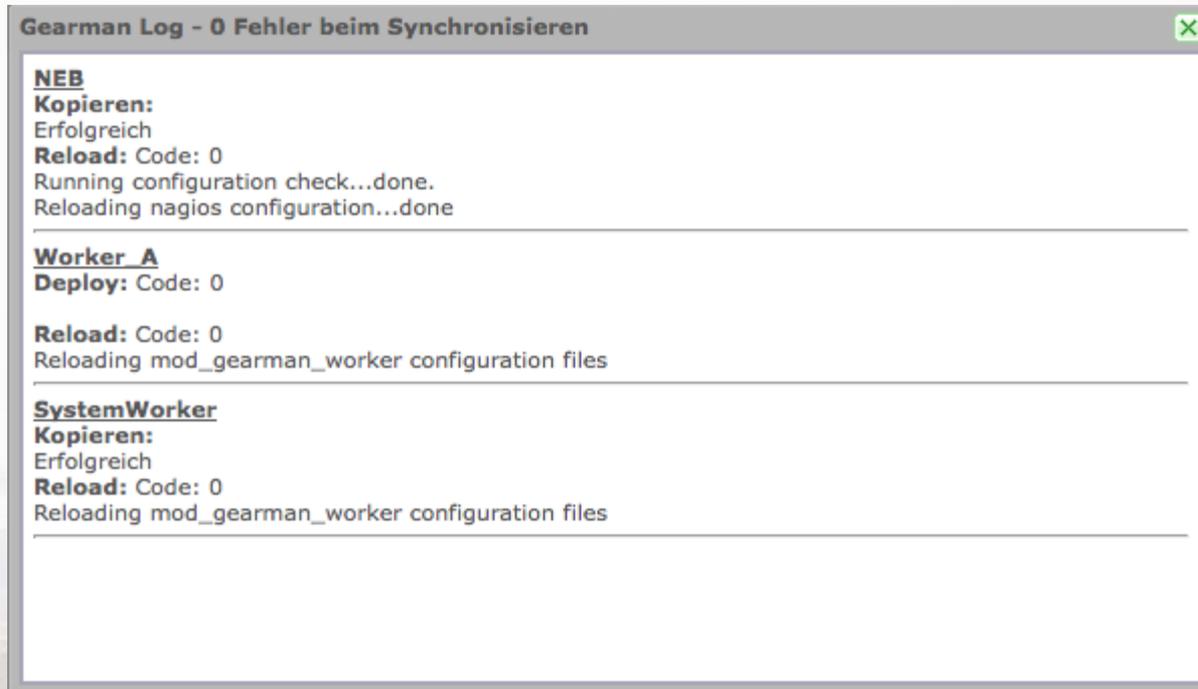
- Neu laden
- Inkrementelle Synchronisation ausführen
- Vollständige Synchronisation ausführen

Letzte Synchronisation

Vollständige Synchronisation ausführen

- gearman
- nagios

# AUTOMATISCHE KONFIGURATIONSSYNCHRONISATION

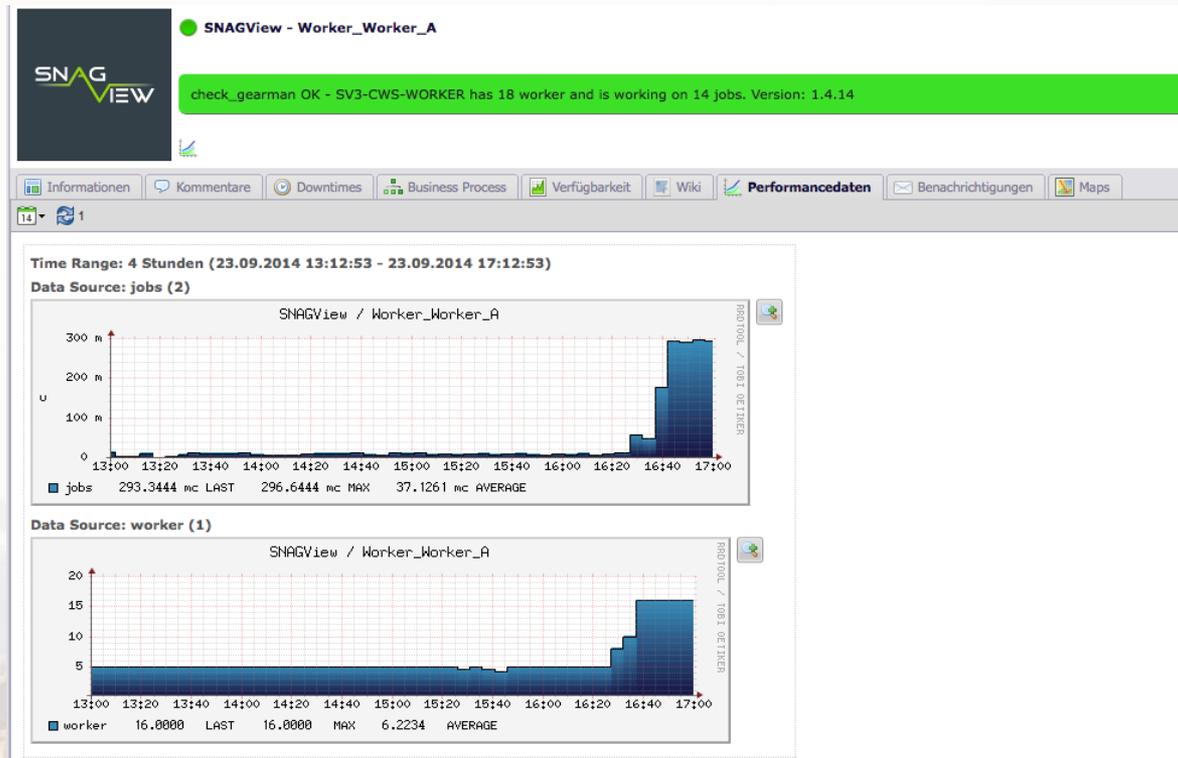


```
Gearman Log - 0 Fehler beim Synchronisieren
NEB
Kopieren:
Erfolgreich
Reload: Code: 0
Running configuration check...done.
Reloading nagios configuration...done
Worker A
Deploy: Code: 0
Reload: Code: 0
Reloading mod_gearman_worker configuration files
SystemWorker
Kopieren:
Erfolgreich
Reload: Code: 0
Reloading mod_gearman_worker configuration files
```

# AUTOMATISCHE ÜBERWACHUNG NEUER WORKER

Up	SNAGView	APACHE		OK	OK! APACHE is RUNNING!
		Gearman		OK	check_gearman OK - 0 jobs running and 0 jobs waiting. Version: 0.33
		MONGODB		OK	OK! MongoDB pid is: 5440 cputime: 03:20:41
		MYSQLD		OK	OK! MySQL pid is: 6005 cputime: 00:20:33
		POSTFIX		OK	OK! Postfix pid is: 3490 cputime: 00:00:08
		SNAGVIEWPROCESS		OK	OK! Backend pid is: 6307 cputime: 00:48:24
		SUPPORTLOGS		OK	OK! No Support logs found!
		SV-INDEX-SERVICE		OK	OK! sv-index-service pid is: 6249 cputime: 00:00:00
		SV-MAILER-SERVICE		OK	OK! SV-MAILER is RUNNING! pid is: 6297 cputime: 00:28:11
		SV-META-SERVICE		OK	OK! sv-meta-service pid is: 6271 cputime: 00:00:00
		SV-PASSIVE-SERVICE		OK	OK! sv-passive-service pid is: 6283 cputime: 00:00:00
		SV-READ-SERVICE		OK	OK! sv-read-service pid is: 6259 cputime: 00:00:00
		SVSTATUS		OK	OK! Svstatus pid is: 6071 cputime: 00:02:58
		SYSLOG		OK	OK! syslog pid is: 1359 cputime: 00:00:03
		Worker_Worker_A		OK	check_gearman OK - SV3-CWS-WORKER has 5 worker and is working on 0 jobs. Version: 1.4.14

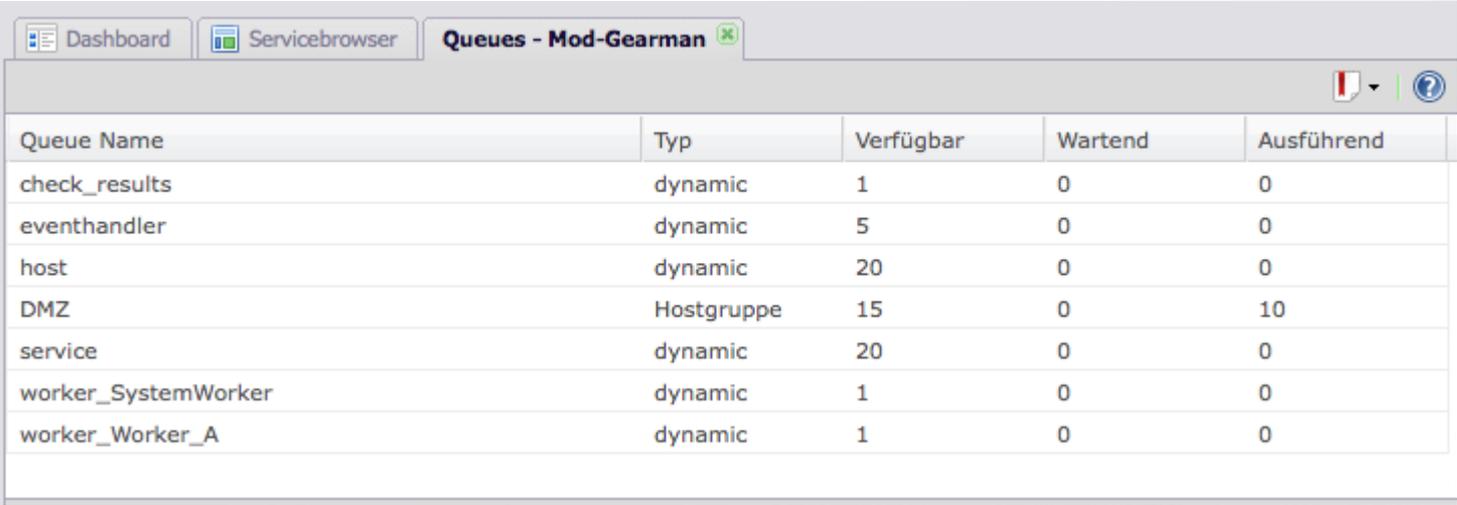
# AUTOMATISCHE ÜBERWACHUNG NEUER WORKER



# Globale Optionen

gearman	
server	
ip	192.168.16.89
port	4730
encryption	
pre-shared-key	secret
use-key-file	0
key-file	/path/to/secret.file
neb	
logfile	/var/log/mod_gearman/mod_gearman_neb.log
debug	0
do_hostchecks	yes
route_eventhandler_like_checks	no
use_uniq_jobs	on
result_workers	1
perfddata	no
perfddata_mode	1
orphan_host_checks	yes
orphan_service_checks	yes
accept_clear_results	no
worker	
logfile	/var/log/mod_gearman/mod_gearman_worker.log
pidfile	/var/mod_gearman/mod_gearman_worker.pid
show_error_output	yes
enable_embedded_perl	on
use_embedded_perl_implicitly	off
use_perl_cache	on
p1_file	/usr/share/mod_gearman/mod_gearman_p1.pl
workaround_rc_25	off

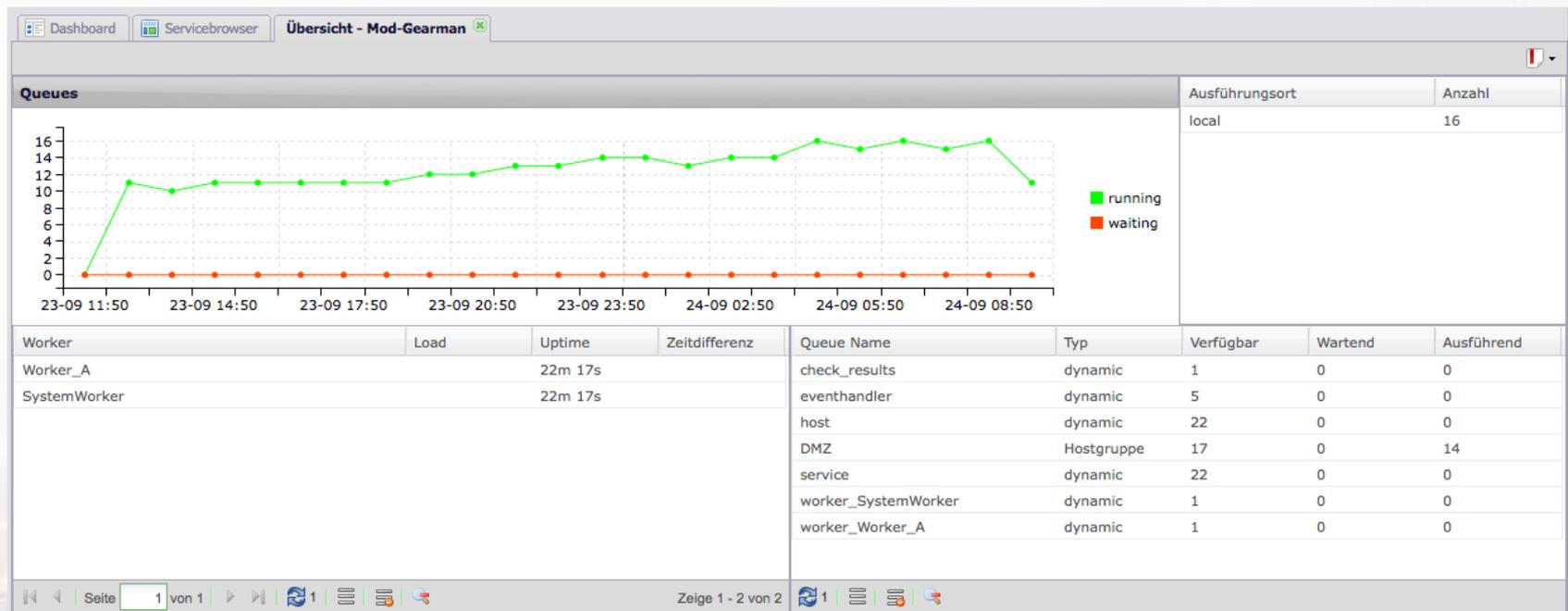
# STATISTIK - QUEUES



The screenshot shows a Windows Service console window titled 'Queues - Mod-Gearman'. The window has a menu bar with 'Dashboard' and 'Servicebrowser'. Below the menu bar is a table with the following columns: 'Queue Name', 'Typ', 'Verfügbar', 'Wartend', and 'Ausführend'. The table contains the following data:

Queue Name	Typ	Verfügbar	Wartend	Ausführend
check_results	dynamic	1	0	0
eventhandler	dynamic	5	0	0
host	dynamic	20	0	0
DMZ	Hostgruppe	15	0	10
service	dynamic	20	0	0
worker_SystemWorker	dynamic	1	0	0
worker_Worker_A	dynamic	1	0	0

# STATISTIK - ÜBERSICHT





# ENTWICKLUNGSSTATUS

Entwicklungsstatus der Mod-Gearman Weboberfläche





# ENTWICKLUNGSSTATUS

- Entwicklung zu 90% abgeschlossen
  - RPM verfügbar
  - Dokumentation verfügbar
  - Testinstallation erfolgt nächste Woche
- 



ENDE

Vielen Dank für Ihre Aufmerksamkeit.

