



## NOC - Monitoring

**Sayru-Göz** danışmanlık hizmetimiz ile nitelikli izleme ihtiyaçlarınızı, kurumunuza özel çözümler sunarak gideriyoruz. Aşağıda Monitoring için açık kaynaklı ve herhangi bir lisans kısıtlaması olmayan uygulamaya ilişkin genel bilgiler mevcuttur:

**Zabbix NOC;** Bilgi Teknolojileri altyapılarında sistem, ağ, uygulama ve servislerin sürekli izlenmesini sağlayan açık kaynak kodlu bir gözleme (monitoring) ve uyarı (alarm) sistemidir.

Linux tabanlı sistemlerde çalışır ve yüksek ölçeklenebilirliği sayesinde küçük, orta ve büyük ölçekli kurumların tüm izleme ihtiyaçlarına cevap verebilir. Hem on-premise hem de bulut tabanlı yapılarla entegre çalışabilir.

Gelişmiş API desteği, kullanıcı yetkilendirme altyapısı, özelleştirilebilir panoları (dashboard) ve çoklu veri kaynağı desteği ile kurumsal düzeyde kapsamlı bir izleme çözümdür.

Active Directory entegrasyonu sayesinde kullanıcı oturumları merkezi kimlik doğrulama ile güvenli bir şekilde yönetilebilir.

### Temel Özellikleri:

- Gerçek Zamanlı İzleme - Sistemler, ağ cihazları, uygulamalar ve servislerin anlık durumu izlenebilir.
- Uyarı ve Bildirim Sistemi - Kritik eşiklerde otomatik uyarılar tanımlanabilir. E-posta, SMS, Teams, Telegram, webhook gibi kanallarla bildirim yapılabilir.
- Tarihsel Veri Toplama ve Grafikler - Performans geçmişi tutulur, karşılaştırmalı grafikler ile analiz yapılabilir.
- Otomatik Keşif ve Envanter - Ağ üzerindeki cihazlar otomatik olarak tespit edilir, yapılandırma ve envanter bilgileri toplanır.
- Kural Tabanlı Olay Yönetimi - Esnek tetikleyici (trigger) kuralları ile olay yönetimi yapılabilir.
- Raporlama ve Dashboard Desteği - Özelleştirilebilir panolarla (dashboard) sistem durumu görselleştirilebilir, periyodik raporlar üretilebilir.
- Agent ve Agentless İzleme - Hem ajan kurularak hem de SNMP, IPMI, JMX gibi protokollerle uzaktan izleme yapılabilir.
- Gelişmiş Kullanıcı Yetkilendirmesi - Kullanıcılara grup ve rol bazlı detaylı yetkilendirme yapılabilir.
- API Desteği ile Entegrasyon - Harici sistemlerle entegrasyon ve otomasyon için RESTful API desteği sunar.

- Otomatik Olay Tepkisi (Action Rules) - Belirli olaylara otomatik müdahale edilecek kurallar tanımlanabilir (örneğin servis yeniden başlatma).
- Yüksek Erişilebilirlik (HA) Desteği - Zabbix bileşenleri yük devretmeli yapılarla çalışabilir.

### Oturum Açma Sayfası:



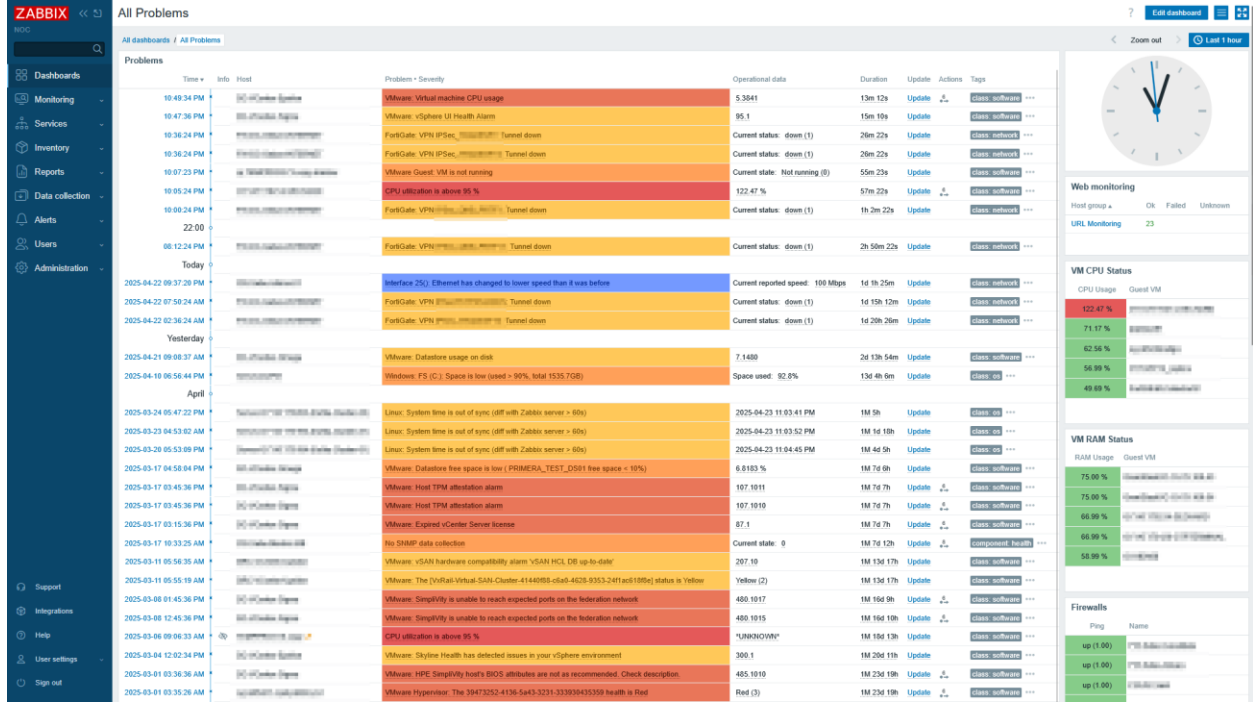
The image shows the Zabbix login page. It features a central white box with the Zabbix logo at the top. Below the logo, there are input fields for 'Username' and 'Password'. A checkbox labeled 'Remember me for 30 days' is present below the password field. A blue 'Sign in' button is located at the bottom of the form. Below the form, there are links for 'Help' and 'Support'. The background is a light gray with a subtle grid pattern.

### Açılış Sayfası Ana Pano (Admin NOC):



Sunucu durumu, uyarılar, olay geçmişi ve kaynak kullanımı gibi özet bilgiler tek ekranda sunulur.

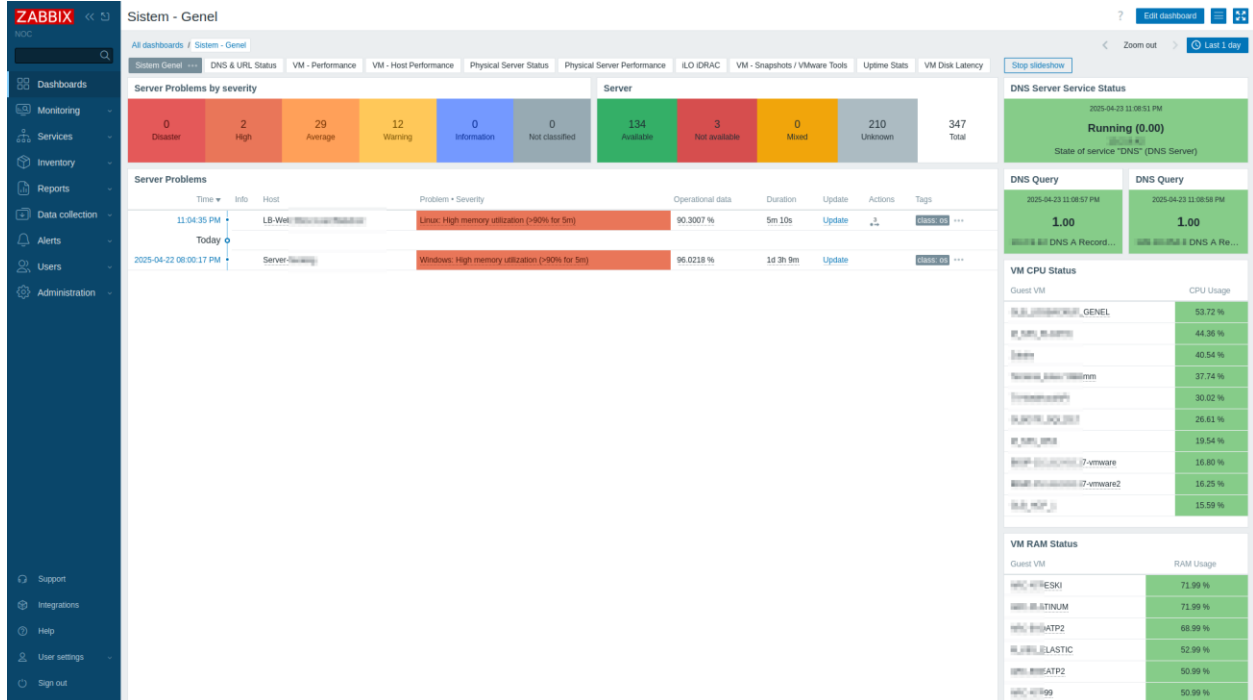
## Problem Takibi Pano:



The screenshot shows the ZABBIX 'All Problems' dashboard. It features a left sidebar with navigation options like Dashboards, Monitoring, Services, Inventory, Reports, Data collection, Alerts, Users, and Administration. The main area displays a table of problems with columns for Time, Info, Host, Problem - Severity, Operational data, Duration, Update, Actions, and Tags. Problems are color-coded by severity: Red (Critical), Orange (High), Yellow (Medium), and Green (Low). On the right side, there are several summary widgets: a clock, Web monitoring status, VM CPU Status (showing 122.47% usage), VM RAM Status (showing 75.00% usage), and a list of Firewalls.

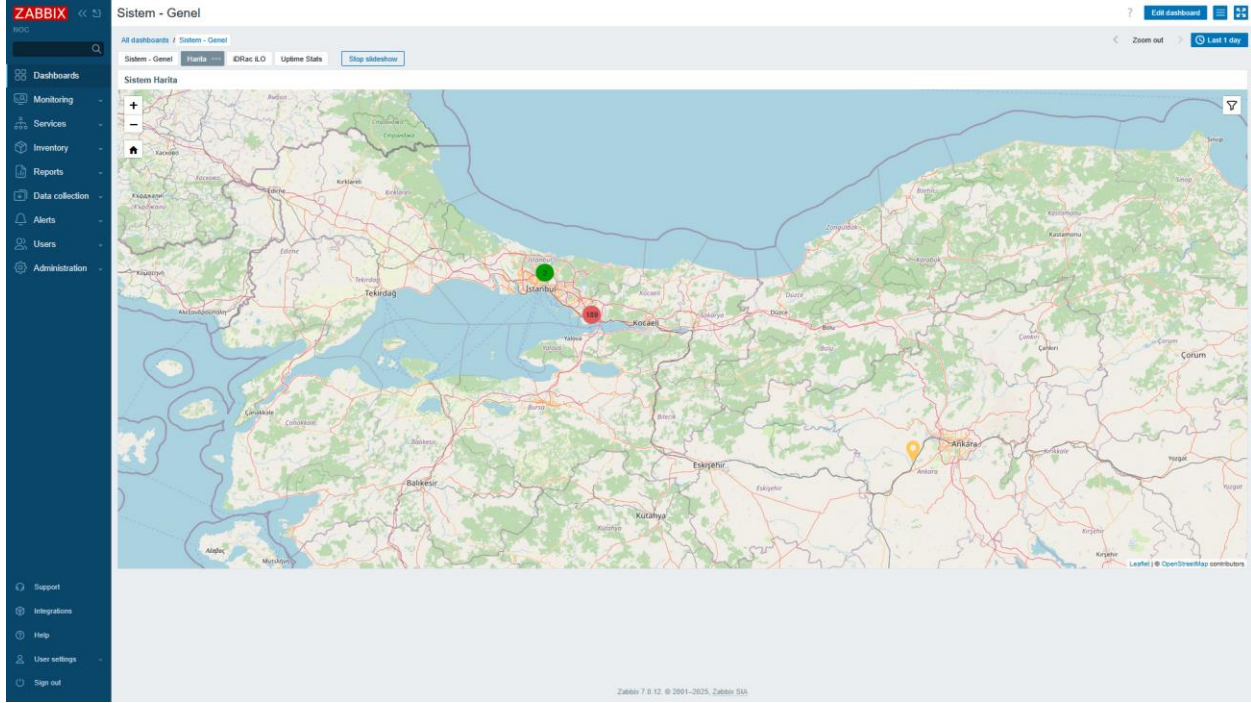
Tespit edilen problemler listelenebilir, önceliklendirilebilir ve takip edilebilir.

## Sistem - Genel Pano:

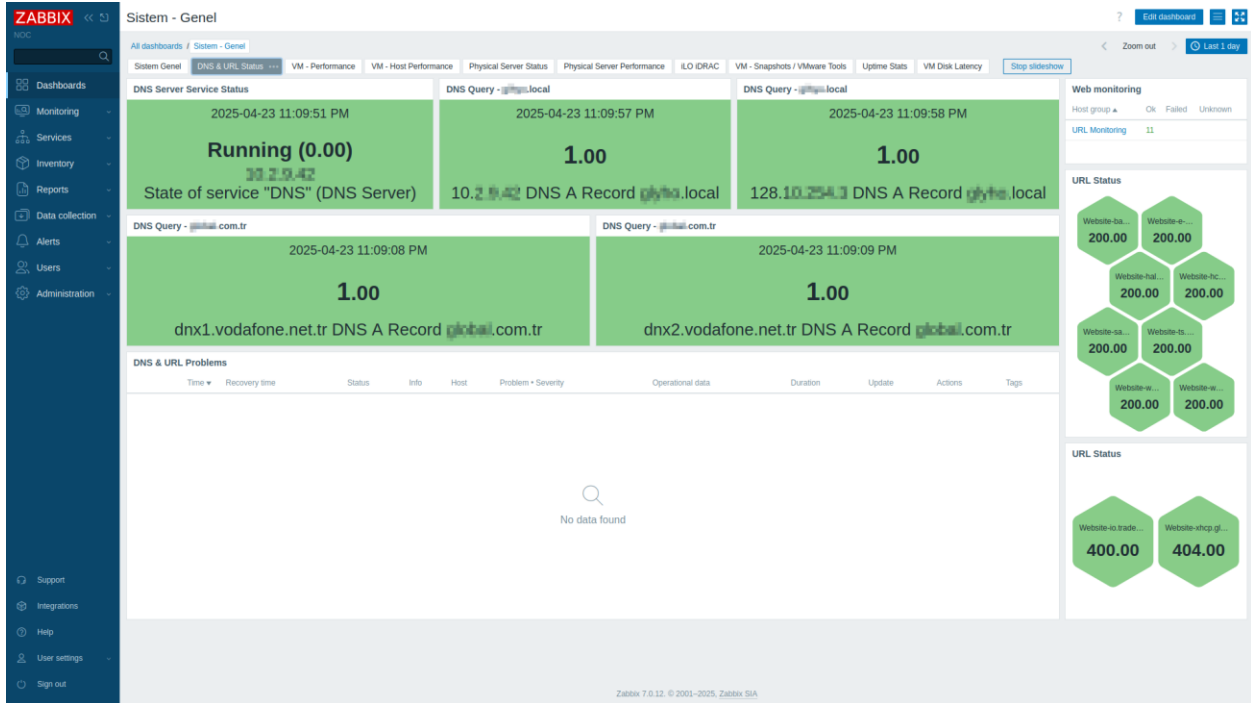


The screenshot shows the ZABBIX 'Sistem - Genel' dashboard. It features a left sidebar with navigation options. The main area displays a 'Server Problems by severity' bar chart with categories: Disaster (0), High (2), Average (29), Warning (12), Information (0), and Not classified (0). Below this is a table of server problems with columns for Time, Info, Host, Problem - Severity, Operational data, Duration, Update, Actions, and Tags. On the right side, there are several summary widgets: DNS Server Service Status (Running 0.00), DNS Query status, VM CPU Status (showing 53.72% usage for GENEL), and VM RAM Status (showing 71.99% usage for ESXi).

### Sistem – Harita Pano:



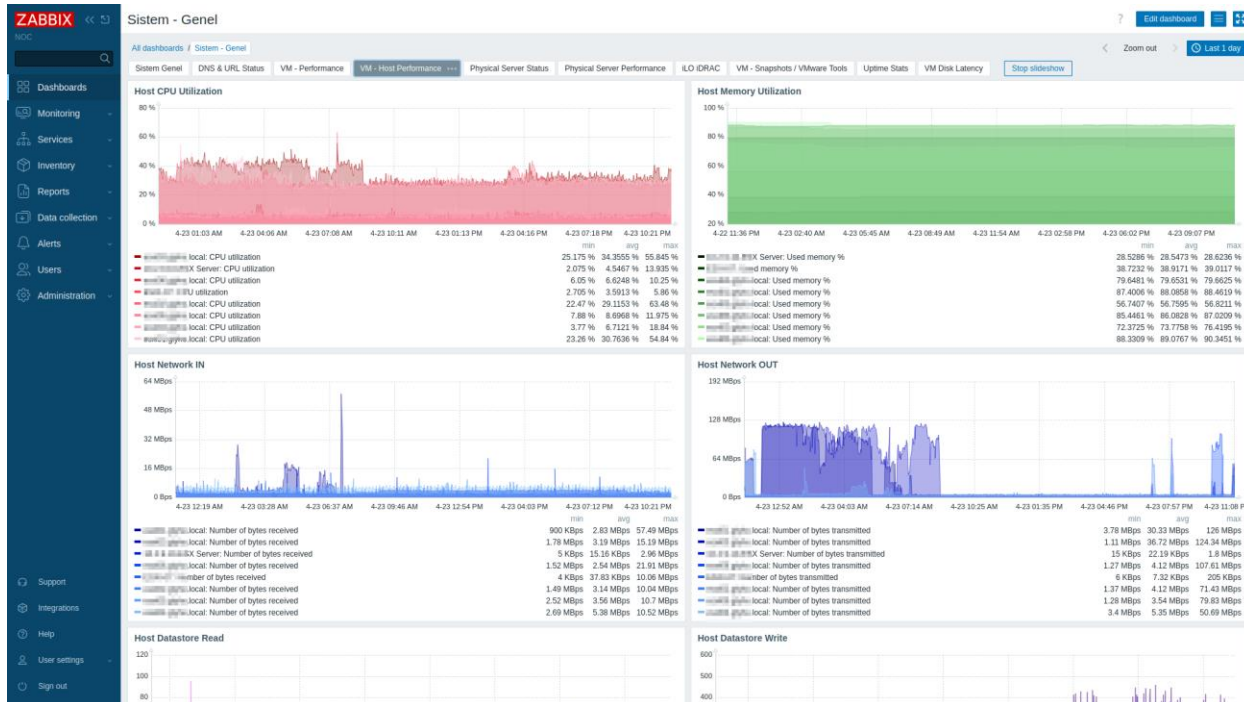
### Sistem – DNS & URL Pano:



### Sistem – VM Performans Pano:



### Sistem – VM Host Performans Pano:





### Sistem – iLO iDRAC Pano:

**Sistem - Genel**

**iLO Problems by severity**

0	0	2	3	0	0	9	1	0	0	10
Disaster	High	Average	Warning	Information	Not classified	Available	Not available	Mixed	Unknown	Total

**iLO Problems**

Time	Info	Host	Problem - Severity	Operational data	Duration	Update	Actions	Tags
2025-02-16 12:15:38 AM		iLO-Server	HP iLO: Disk 2.239(00) : Virtual disk is not in OK state	Current state: other (1)	2M 6d 22h	Update	class: hardware	
2025-02-15 11:53:08 PM		iLO-Server	HP iLO: i0: Disk array cache controller is not in optimal state	Current state: permDisabled (5)	2M 6d 23h	Update	class: hardware	
2025-02-15 11:53:08 PM		iLO-Server	HP iLO: Slot 0: Disk array controller is in warning state	Current state: degraded (2)	2M 6d 23h	Update	class: hardware	
2025-02-15 11:52:54 PM		iLO-Server	HP iLO: System status is in warning state	Current state: degraded (2)	2M 6d 23h	Update	class: hardware	
2025-02-15 11:48:05 PM		iLO-Server	HP iLO: Fan 0.6: Fan is in critical state	Current state: failed (4)	2M 6d 23h	Update	class: hardware	

**iLO Status**

Name	Ping	SNMP
iLO-Server	Up (1.00)	available (1.00)
iLO-Server	Up (1.00)	available (1.00)
iLO-Server	Up (1.00)	available (1.00)
iLO-Server	Up (1.00)	available (1.00)
iLO-Server	Up (1.00)	available (1.00)
iLO-Server	Up (1.00)	available (1.00)
iLO-Server	Up (1.00)	available (1.00)
iLO-Server	Up (1.00)	available (1.00)
iLO-Server	Up (1.00)	available (1.00)
iLO-Server	Up (1.00)	available (1.00)

**iLO Uptime Stats**

Name	Uptime
iLO-Server	13 days, 10:45:44
iLO-Server	49 days, 00:03:14
iLO-Server	60 days, 00:37:01
iLO-Server	200 days, 09:49:15
iLO-Server	200 days, 10:02:06
iLO-Server	200 days, 10:09:03
iLO-Server	200 days, 10:34:11
iLO-Server	233 days, 11:53:20
iLO-Server	233 days, 11:54:24
iLO-Server	233 days, 12:03:54

**iLO - Top triggers**

Host	Trigger	Severity	Number of problems
No data found			

### Sistem – VM Snapshots & VMware Tools Pano:

**Sistem - Genel**

**VM Snapshots**

Snapshot count	Snapshot latest date	IP	Guest VM
1	2025-04-23T19:18:40...		enM...
0	null	10.2.9.182	Terminal...
0	null	10.2.9.148	GTP...
0	null	172.26.133.37	GMD...
0	null	10.2.9.104	Terminal...
0	null	10.2.9.247	ARC...
0	null	10.2.9.150	New...
0	null	10.101.101.77	TEST...
0	null	10.2.9.99	M_K...
0	null	10.2.9.243	ARC...
0	null	10.101.101.41	GLB...
0	null	10.2.9.195	VCS...
0	null	10.2.9.97	M_K...
0	null	10.2.9.86	Term...
0	null	10.2.9.228	GTP...
0	null	10.2.9.22	INF...
0	null	10.101.101.99	Web...

**VMware Tools**

Tools Status	Tools Version	IP	Guest VM
Guest tools is not running (1)	10305		EnM...
Guest tools is not running (1)	12358		Alp...
Guest tools is not running (1)	12358		Bo...
Guest tools is not running (1)	10305		M...
Guest tools is not running (1)	10252		_f...
Guest tools is not running (1)	10305		_c...
Guest tools is not running (1)	12320		_V...
Guest tools is not running (1)	12358		enM...
Guest tools is not running (1)	11269		_C...
Guest tools is not running (1)	12358		Ter...
Guest tools is not running (1)	11269		_O...
Guest tools is not running (1)	11360		M...
Guest tools is not running (1)	12320		_N...
Guest tools is not running (1)	0		GLB...
Guest tools is not running (1)	12320		_C...
Guest tools is not running (1)	10305		_E...
Guest tools is not running (1)	10252		o...
Guest tools is not running (1)	12320		Ter...
Guest tools is not running (1)	12320		_C...
Guest tools is not running (1)	10304		_V...
Guest tools is not running (1)	10252		M...

### Sistem – Uptime Pano:

**Sistem - Genel**

Uptime Stats

VM Uptime Descending			Windows Agent Uptime Descending			Linux Agent Uptime Descending		
Guest VM	IP	Uptime of Guest OS	Guest VM	IP	Uptime of Windows OS	Guest VM	IP	Uptime of Linux OS
ETM01	10.2.9.200	802 days, 05:36:46	Server-001-001	10.2.9.230	802 days, 06:04:19	Server-001-001	10.2.9.139	753 days, 21:16:44
AR01-001	10.2.9.247	802 days, 05:32:50	Server-001-002	10.2.9.231	802 days, 06:03:53	Server-001-002	10.2.9.146	596 days, 14:30:36
AMS-001	10.2.9.244	802 days, 05:32:35	Server-001-003	10.2.9.229	802 days, 05:26:25	Server-001-003	10.2.9.147	595 days, 01:14:20
gms01-gms001	10.2.9.29	802 days, 05:31:20	Server-001-004	10.2.9.50	648 days, 12:20:40	Server-001-004	10.2.9.97	565 days, 23:10:36
M_001-001	10.2.9.139	753 days, 21:17:51	Server-001-005	10.2.9.77	648 days, 11:36:35	Server-001-005	10.2.9.74	548 days, 23:37:31
AR01-002	10.2.9.240	648 days, 12:11:14	Server-001-006	10.2.9.54	530 days, 12:42:31	Server-001-006	10.2.9.75	546 days, 23:25:42
AR01-003	10.2.9.243	648 days, 12:09:28	Server-001-007	10.2.9.61	496 days, 23:37:45	Server-001-007	10.2.9.64	546 days, 23:20:58
AMS-002	10.2.9.245	648 days, 12:08:31	Server-001-008	10.2.9.34	394 days, 12:37:39	Server-001-008	10.2.9.125	445 days, 22:55:25
AR01-004	10.2.9.246	648 days, 12:06:55	Server-001-009	10.2.9.127	383 days, 11:44:59	Server-001-009	10.2.9.124	445 days, 21:59:25
OSM-001-001	10.2.9.50	648 days, 11:58:26	Server-001-010	10.2.9.212	362 days, 13:10:33	Server-001-010	10.2.9.99	376 days, 21:24:57
Rem-001	10.2.9.77	648 days, 11:44:26	Server-001-011	10.2.9.233	360 days, 09:13:16	Server-001-011	10.2.9.87	375 days, 22:07:26
GL001-001	10.2.9.196	640 days, 22:43:20	Server-001-012	10.2.9.235	10.61M	Server-001-012	10.2.9.78	374 days, 02:10:35
SR001	10.2.9.218	640 days, 22:34:30	Server-001-013	10.2.9.232	232 days, 20:22:49	Server-001-013	10.2.9.96	225 days, 01:27:56
M_001-002	10.2.9.146	598 days, 14:29:02	Server-001-014	10.101.101.38	7.11M	Server-001-014	10.2.9.95	225 days, 01:24:50
M_001-003	10.2.9.147	595 days, 01:13:12	Server-001-015	10.2.9.226	213 days, 07:06:33	Server-001-015	10.2.9.123	225 days, 00:32:11
M_001-004	10.2.9.97	565 days, 23:09:08	Server-001-016	10.2.9.70	7.11M	Server-001-016	10.2.9.162	196 days, 00:59:32
M_001-005	10.2.9.74	548 days, 23:36:25	Server-001-017	10.2.9.160	213 days, 07:04:20	Server-001-017	10.2.9.189	195 days, 21:18:11
M_001-006	10.2.9.75	546 days, 23:24:57	Server-001-018	10.2.9.227	7.11M	Server-001-018	10.2.9.166	195 days, 04:45:00
M_001-007	10.2.9.64	546 days, 23:19:35	Server-001-019	10.2.9.228	7.11M	Server-001-019	10.2.9.165	195 days, 04:44:53
INTS-001-001	10.2.9.54	530 days, 12:49:22	Server-001-020	10.2.9.225	7.11M	Server-001-020	10.2.9.184	195 days, 04:44:15
ETM01	10.2.9.214	500 days, 11:11:23	Server-001-021	10.2.9.48	213 days, 07:02:23	Server-001-021	10.2.9.163	195 days, 04:35:52
RG001-001	10.2.9.61	496 days, 23:29:46	Server-001-022	10.2.9.48	213 days, 07:02:22	Server-001-022	10.2.9.167	195 days, 04:30:58
AMS-003	10.2.9.242	454 days, 06:10:30	Server-001-023	10.101.101.100	213 days, 07:00:38	Server-001-023	10.101.101.77	181 days, 21:16:28
M_001-008	10.2.9.125	445 days, 22:54:30	Server-001-024	10.2.9.66	213 days, 07:00:01	Server-001-024	10.101.101.222	174 days, 05:44:08
M_001-009	10.2.9.124	445 days, 21:58:21	Server-001-025	10.2.9.72	7.11M	Server-001-025	10.101.101.23	174 days, 05:44:01

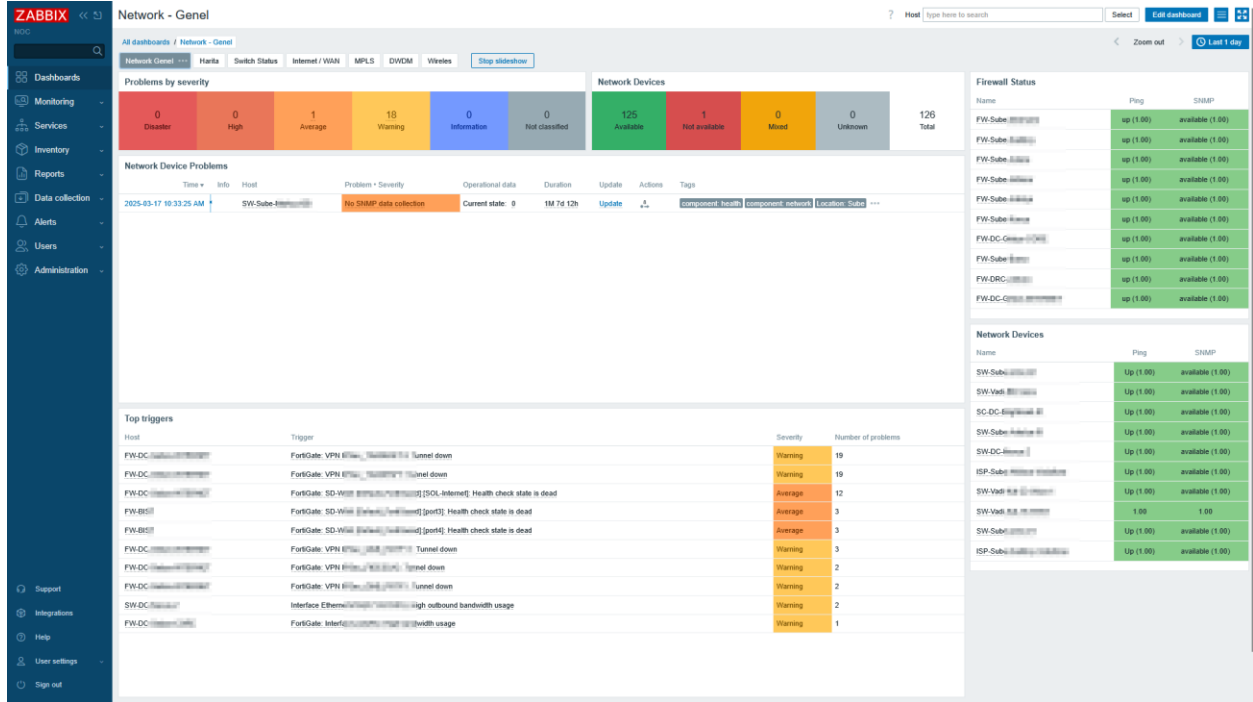
### Sistem – VM Disk Latency Pano:

**Sistem - Genel**

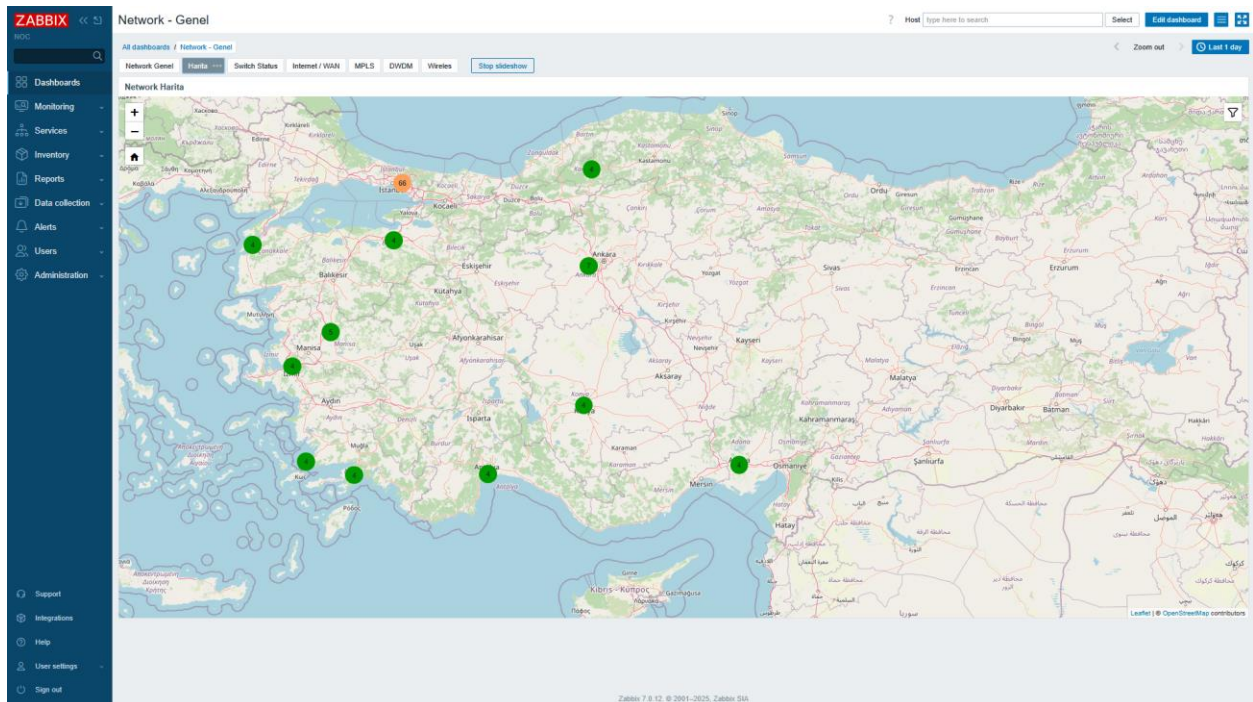
VM Disk Latency

VM Disk 1 Read Latency		VM Disk 1 Write Latency		VM Disk 2 Read Latency		VM Disk 2 Write Latency	
Guest VM	Disk 1 Read Latency	Guest VM	Disk 1 Write Latency	Guest VM	Disk 2 Read Latency	Guest VM	Disk 2 Write Latency
M_001-001	1.00 ms	M_001-001	3.00 ms	NTC01-001	0.00 ms	GT01-001	3.00 ms
ETM01	0.00 ms	M_001-002	2.00 ms	AR01-001	0.00 ms	NC01-001	0.00 ms
gms01-gms001	0.00 ms	Terminus-001	1.00 ms	GL01-001	0.00 ms	WE01-001	0.00 ms
EN-001-001	0.00 ms	M_001-003	1.00 ms	Have-001	0.00 ms	GT01-002	0.00 ms
M_001-001	0.00 ms	ETM01	0.00 ms	AR01-002	0.00 ms	OL01-001	0.00 ms
M_001-002	0.00 ms	M_001-004	0.00 ms	GL01-002	0.00 ms	New-001-001	0.00 ms
M_001-003	0.00 ms	Terminus-002	0.00 ms	New-001-002	0.00 ms	AX-001-001	0.00 ms
INTS-001-001	0.00 ms	IST01	0.00 ms	M_001-005	0.00 ms	AR01-003	0.00 ms
M_001-001	0.00 ms	M_001-005	0.00 ms	WE01-001	0.00 ms	AR01-004	0.00 ms
M_001-002	0.00 ms	GT01-001	0.00 ms	GT01-002	0.00 ms	SUP01-001	0.00 ms
TAR01-001	0.00 ms	Senemey-001	0.00 ms	GL01-003	0.00 ms	gms01-gms002	0.00 ms
GT01-001	0.00 ms	Nick-001	0.00 ms	New-001-003	0.00 ms	INTS-001-002	0.00 ms
GT01-002	0.00 ms	TV-001	0.00 ms	AX-001-002	0.00 ms	AR01-005	0.00 ms
M_001-004	0.00 ms	VCL-001	0.00 ms	AR01-006	0.00 ms	Senemey-002	0.00 ms
MOR01-001	0.00 ms	Fortis-001	0.00 ms	AR01-007	0.00 ms	mail-001-001	0.00 ms
MAS-001-001	0.00 ms	GA01-001	0.00 ms	SUP01-002	0.00 ms	GT01-003	0.00 ms
GT01-003	0.00 ms	Terminus-003	0.00 ms	gms01-gms003	0.00 ms	IST01-001	0.00 ms
WE01-001	0.00 ms	VCL-002	0.00 ms	INTS-001-003	0.00 ms	INF01-001	0.00 ms
Terminus-003	0.00 ms	Terminus-004	0.00 ms	AR01-008	0.00 ms	AR01-009	0.00 ms
BIG01-001	0.00 ms	Fib01-001	0.00 ms	Senemey-003	0.00 ms	SQL-001-001	0.00 ms
GT01-004	0.00 ms	VIO01-001	0.00 ms	mail-001-002	0.00 ms	e-HE-001-001	0.00 ms
SQL-001-002	0.00 ms	GL01-004	0.00 ms	GT01-004	0.00 ms	GT01-004	0.00 ms
M_001-005	0.00 ms	AR01-009	0.00 ms	IST01-002	0.00 ms	WE01-002	0.00 ms
WE01-002	0.00 ms	Ap01-001	0.00 ms	INF01-002	0.00 ms	AR01-010	0.00 ms
AX-001-002	0.00 ms	M_001-006	0.00 ms	AR01-011	0.00 ms	Tradition-001	0.00 ms

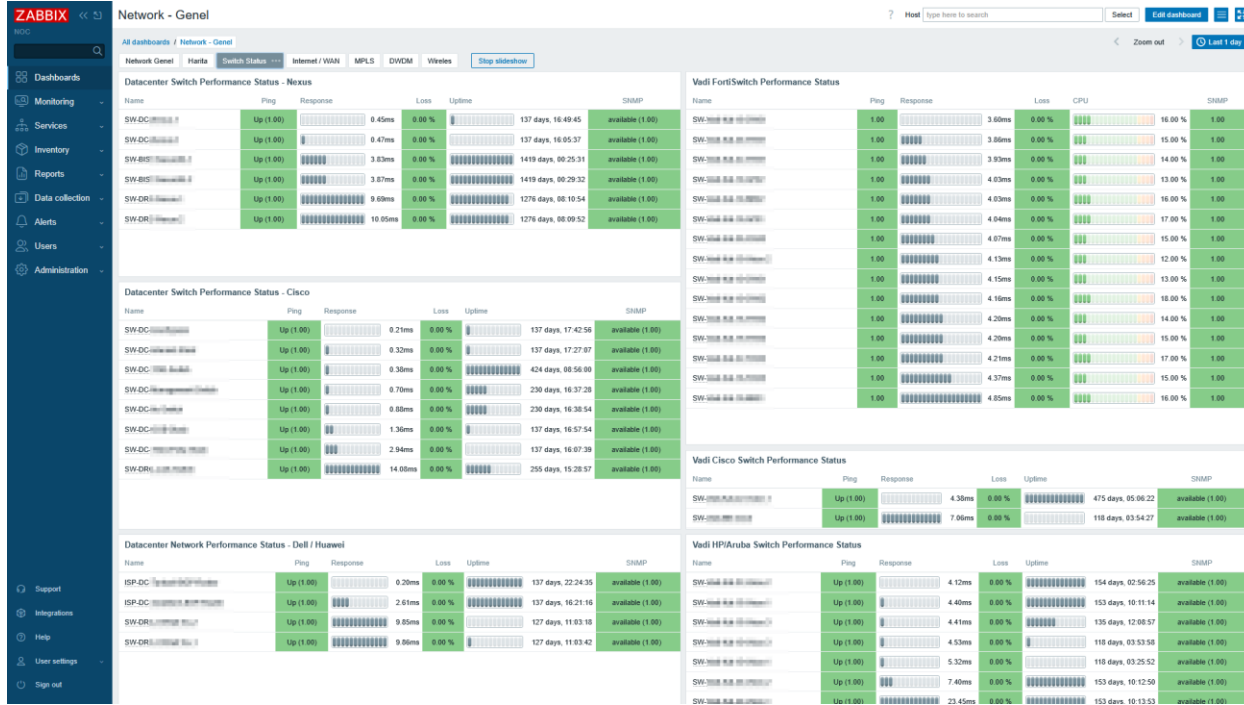
## Network – Genel Pano:



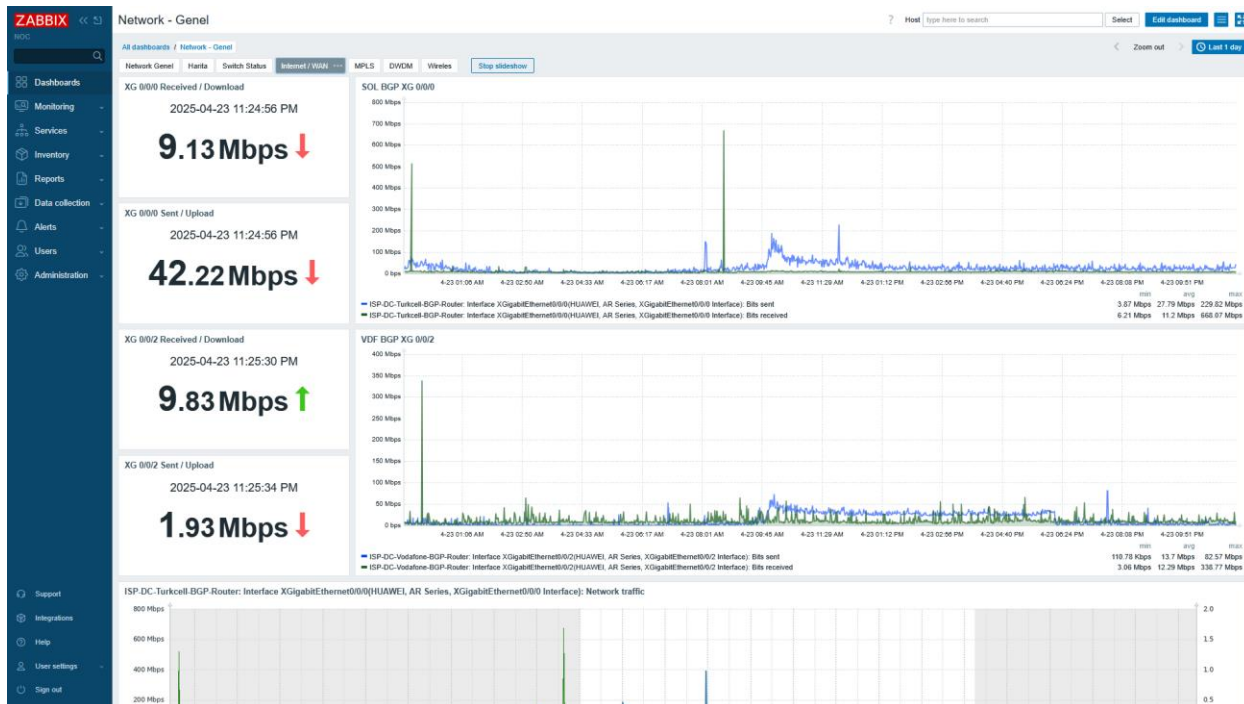
## Network – Harita Pano:



### Network – Switch Status Pano:



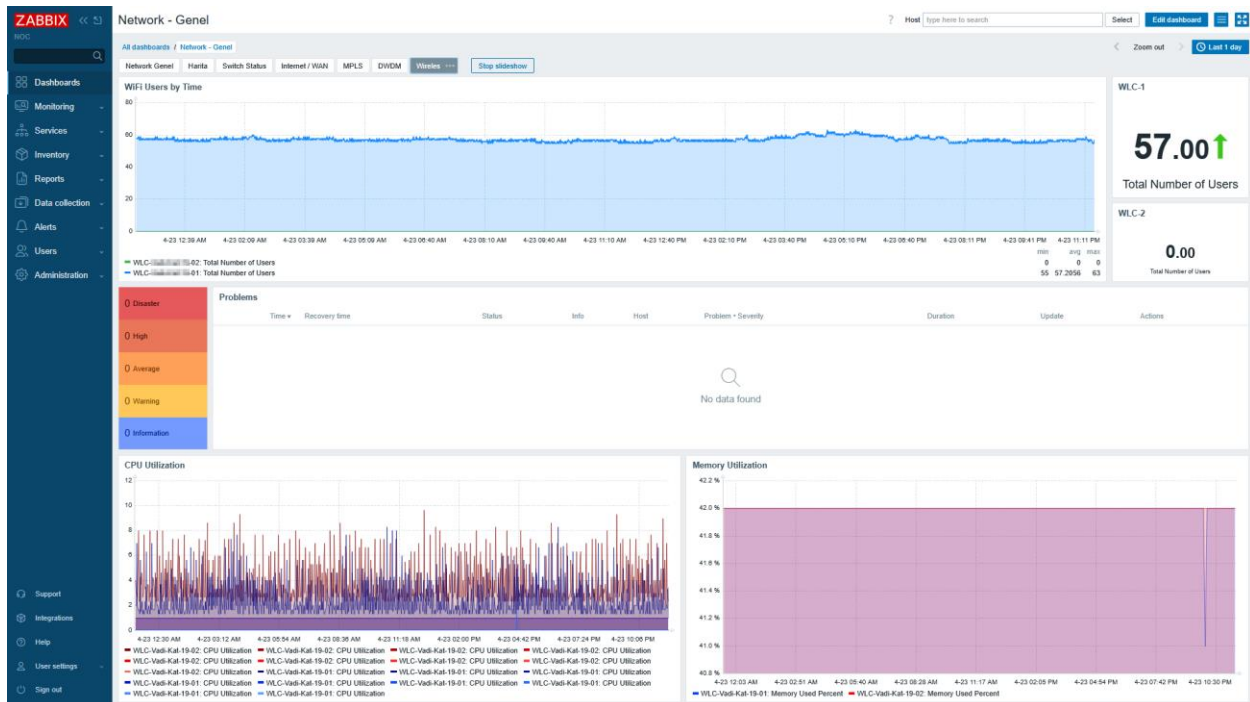
### Network – WAN Bandwidth Pano:



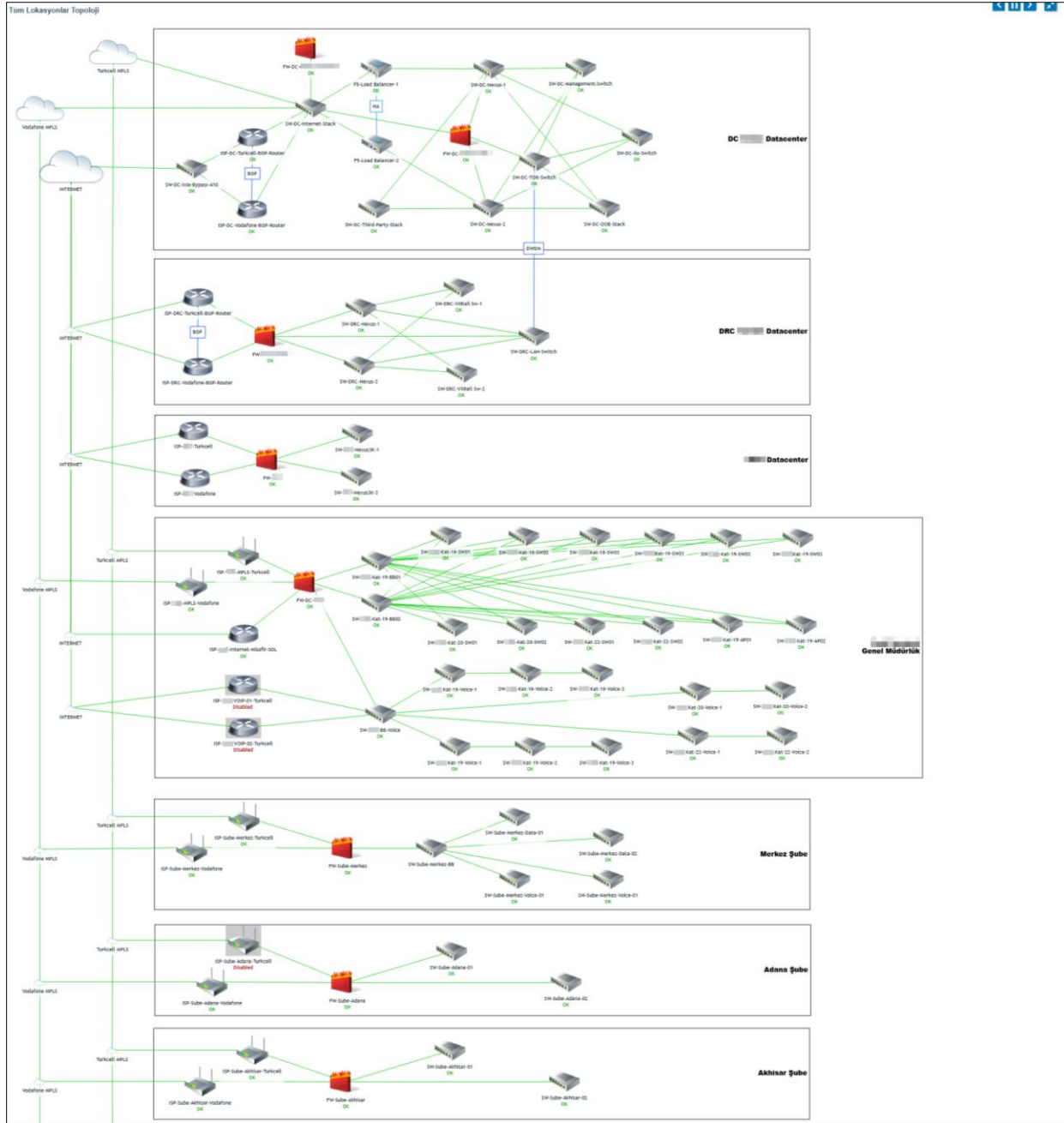
### Network – MPLS Bandwidth Pano:



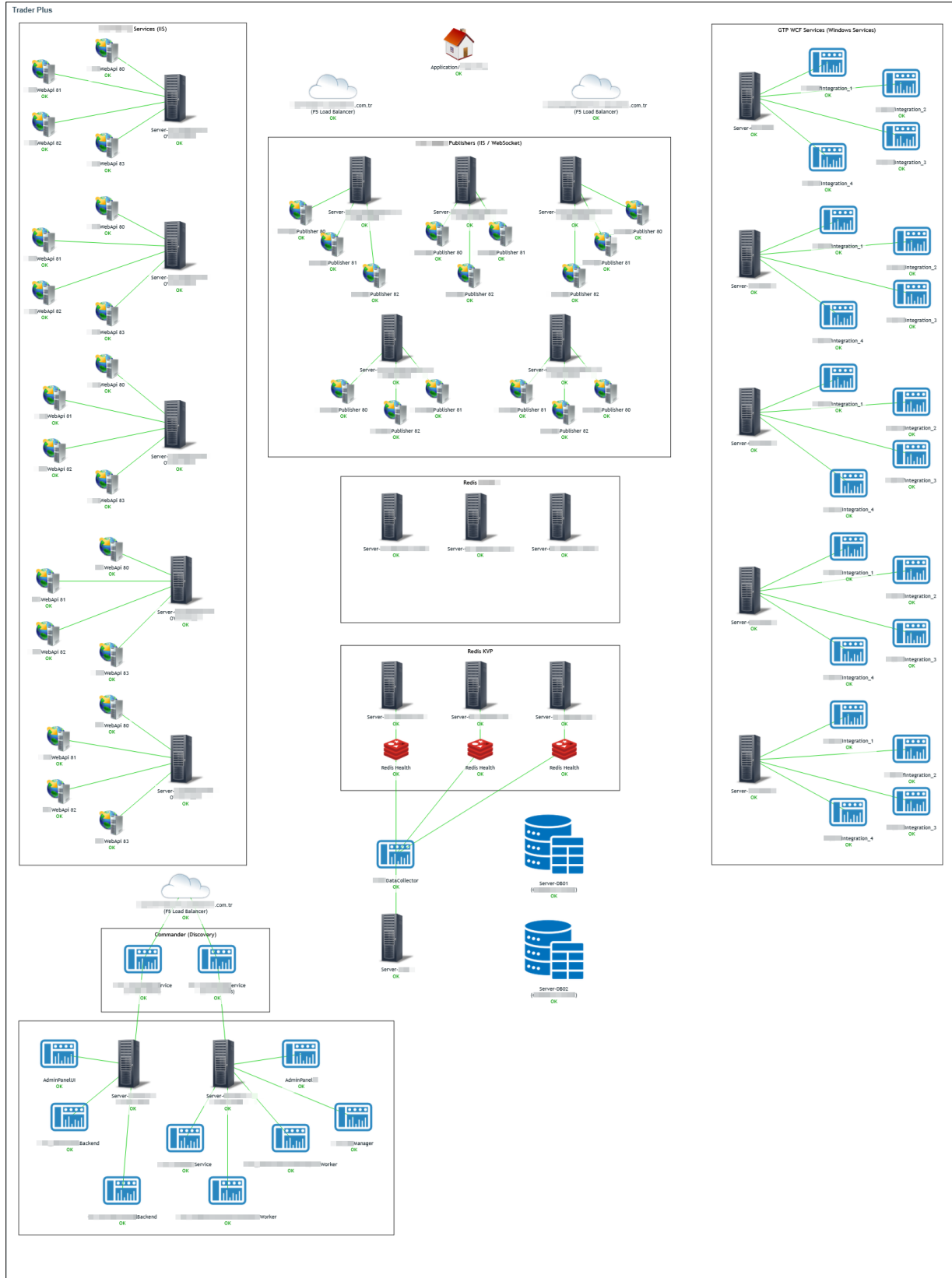
### Network – Wireless Pano:



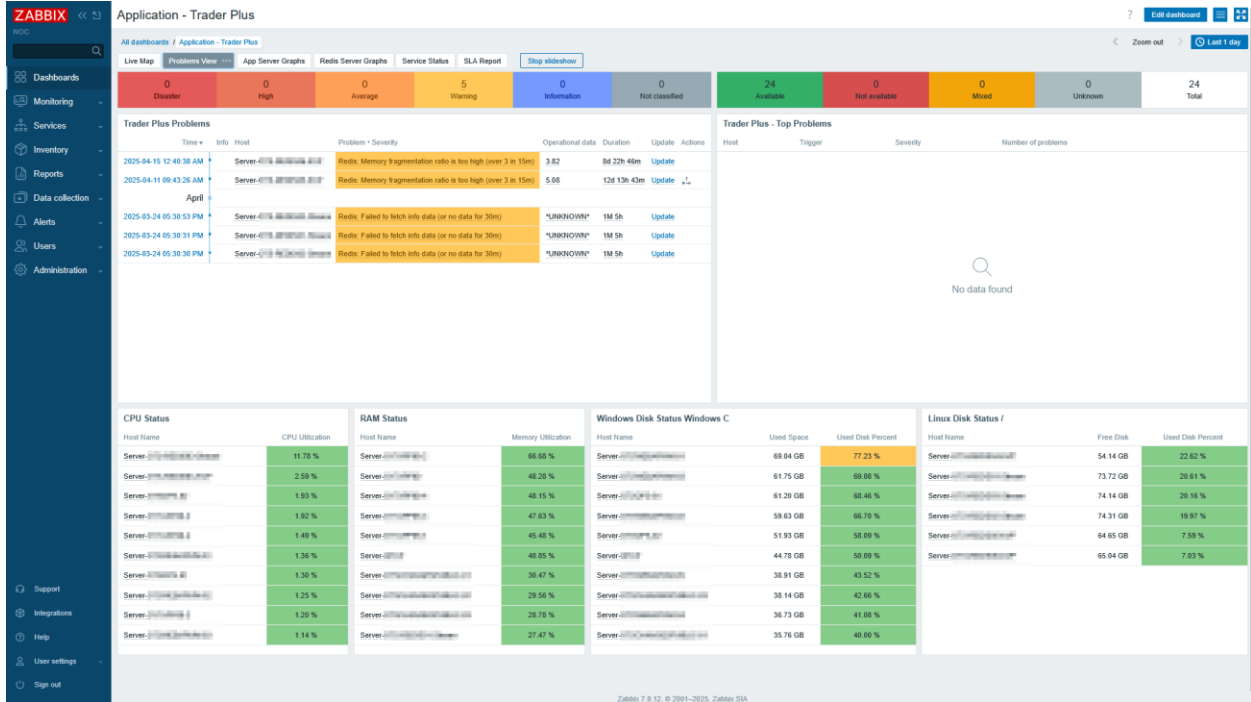
**Network – Canlı Topoloji Örnek:**



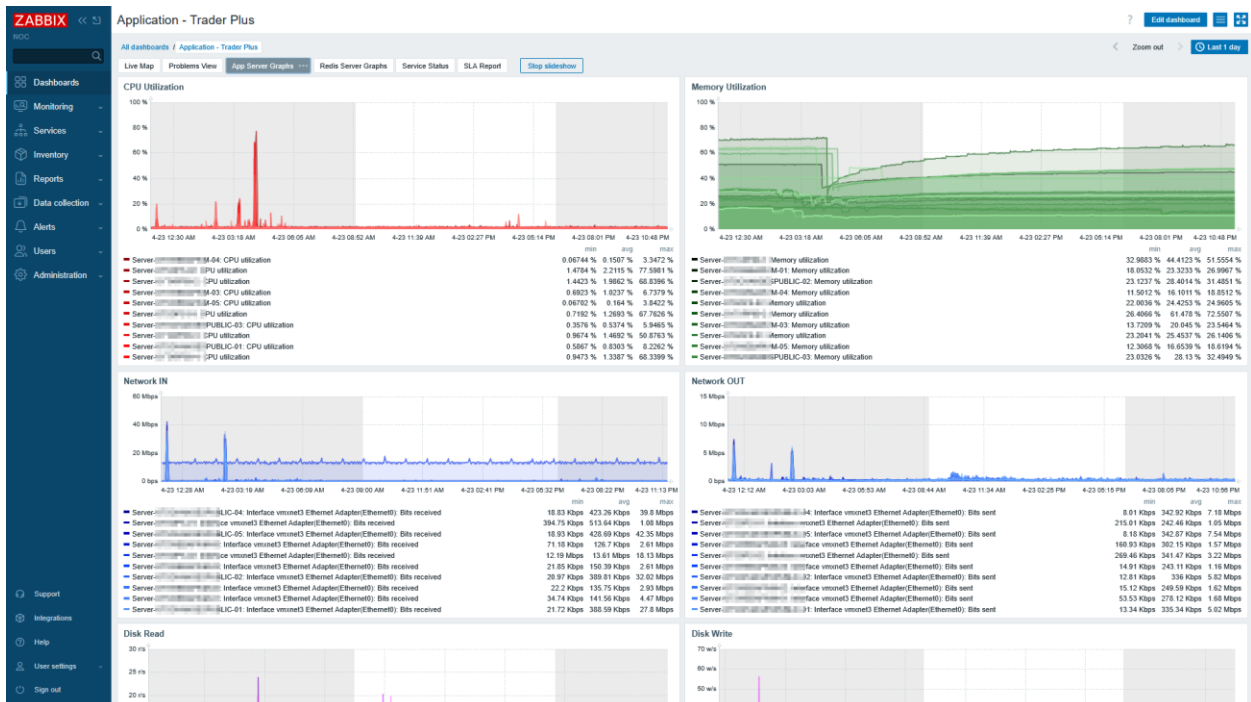
Application – Live Map Pano:



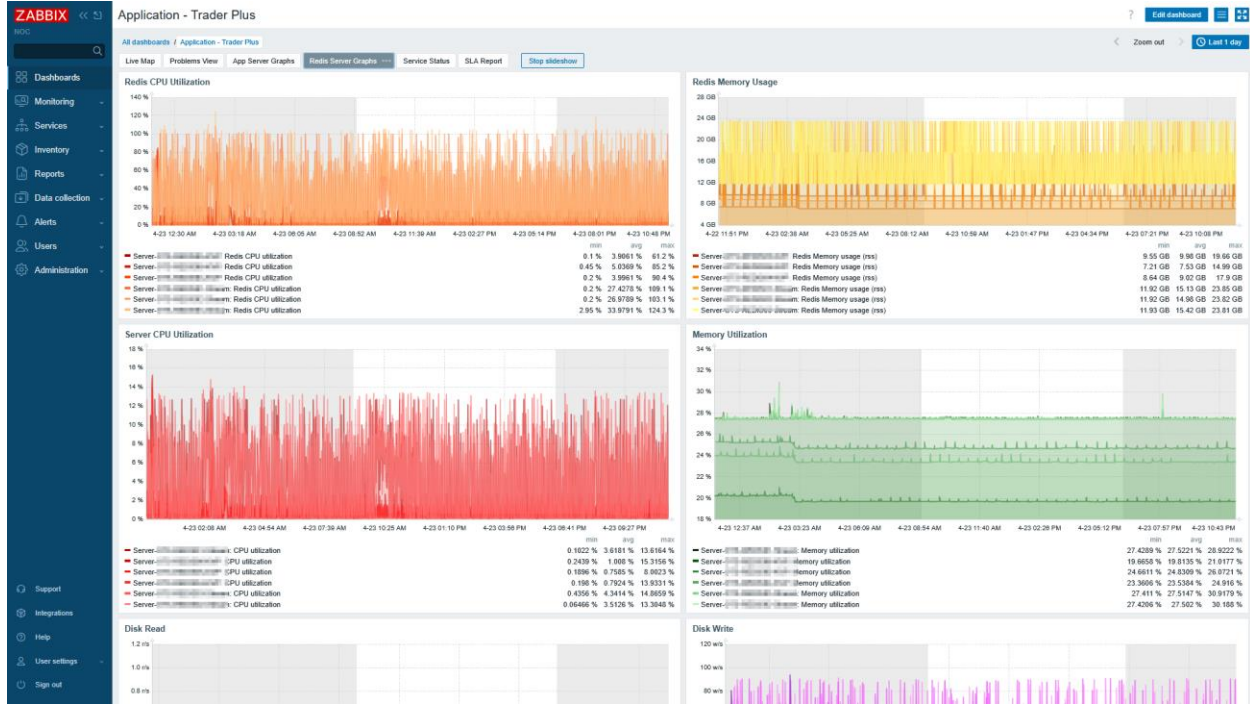
### Application – Problems View Pano:



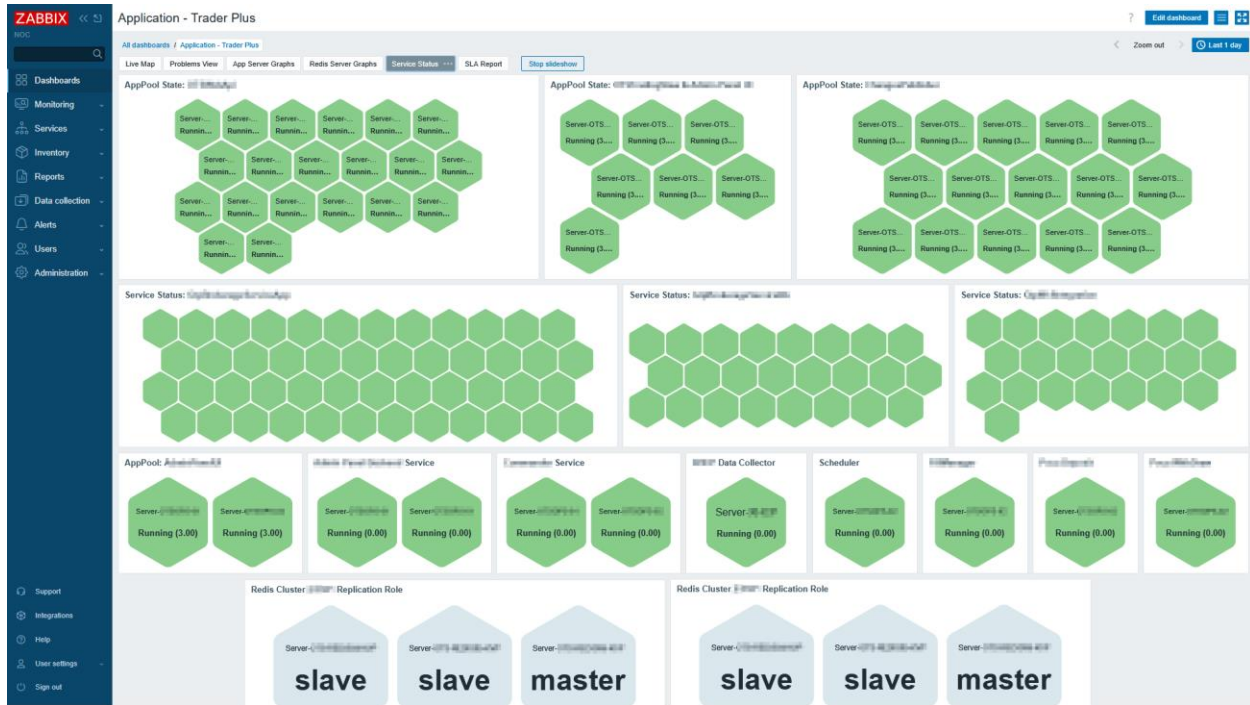
### Application – App Server Graph Pano:



### Application – Redis Server Graph Pano:



### Application – Service Status Pano:





## Alarm Log Örneği:

**ZABBIX** Action log Export to CSV

Zoom out Limit 1 day Filter

Recipients  Select Status  In progress  Sent/Executed  Failed

Actions  Select Search string

Media types  Select Apply Reset

Time	Action	Media type	Recipient	Message	Status	Info
2025-04-23 11:47:34 PM	System - VMware Alerts	SMS API	[REDACTED]	Subject: Message: PROBLEM High: VMware: Virtual machine CPU usage Host: DC-[REDACTED] Data: 5.5716 2025.04.23 23:37:34	Sent	
2025-04-23 11:47:34 PM	System - VMware Alerts	SMS API	[REDACTED]	Subject: Message: PROBLEM High: VMware: Virtual machine CPU usage Host: DC-[REDACTED] Data: 5.5716 2025.04.23 23:37:34	Sent	
2025-04-23 11:47:34 PM	System - VMware Alerts	SMS API	[REDACTED]	Subject: Message: PROBLEM High: VMware: Virtual machine CPU usage Host: DC-[REDACTED] Data: 5.5716 2025.04.23 23:37:34	Sent	
2025-04-23 11:46:18 PM	System - VMware Alerts	SMS API	[REDACTED]	Subject: Message: PROBLEM Disaster: CPU utilization is above 95 % Host: [REDACTED] /Worker01 Data: 114.67 % 2025.04.23 23:36:18	Sent	
2025-04-23 11:46:18 PM	System - VMware Alerts	SMS API	[REDACTED]	Subject: Message: PROBLEM Disaster: CPU utilization is above 95 % Host: [REDACTED] /Worker01 Data: 114.67 % 2025.04.23 23:36:18	Sent	
2025-04-23 11:46:18 PM	System - VMware Alerts	SMS API	[REDACTED]	Subject: Message: PROBLEM Disaster: CPU utilization is above 95 % Host: [REDACTED] /Worker01 Data: 114.67 % 2025.04.23 23:36:18	Sent	
2025-04-23 11:43:24 PM	System - VMware Alerts	Email (HTML)	[REDACTED]	Subject: Message: Resolved in 1h 35m 0s. CPU utilization is above 95 % ->-Problem has been resolved-> at 23:43:24 on 2025.04.23->->-Problem name->->- CPU utilization is above 95 %->->-Problem duration->->- 1h 35m 0s->->-Host->->- [REDACTED] RECHARD->->-Operational Data ->->- 17.84 %->->-Severity->->- Disaster->->-Original problem ID->->- 62747322->->-	Sent	
2025-04-23 11:43:24 PM	System - VMware Alerts	Email (HTML)	[REDACTED]	Subject: Message: Resolved in 1h 35m 0s. CPU utilization is above 95 % ->-Problem has been resolved-> at 23:43:24 on 2025.04.23->->-Problem name->->- CPU utilization is above 95 %->->-Problem duration->->- 1h 35m 0s->->-Host->->- [REDACTED] RECHARD->->-Operational Data ->->- 17.84 %->->-Severity->->- Disaster->->-Original problem ID->->- 62747322->->-	Sent	
2025-04-23	System - VMware Alerts	Email (HTML)	[REDACTED]	Subject:	Sent	