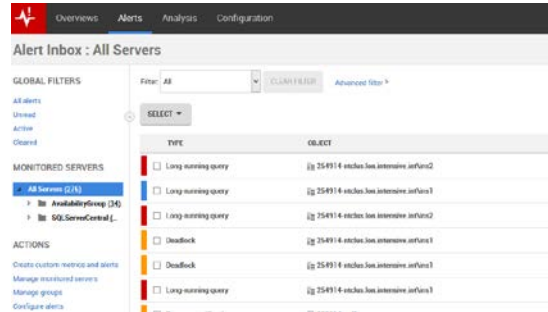
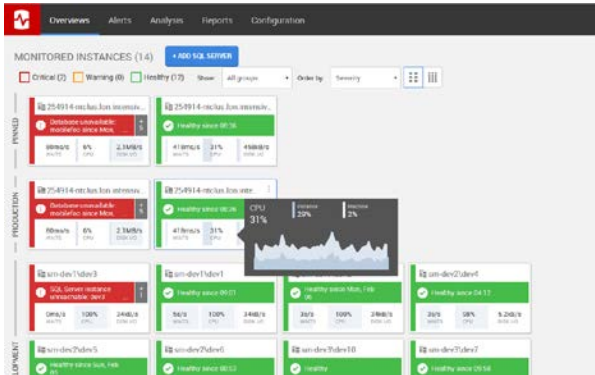
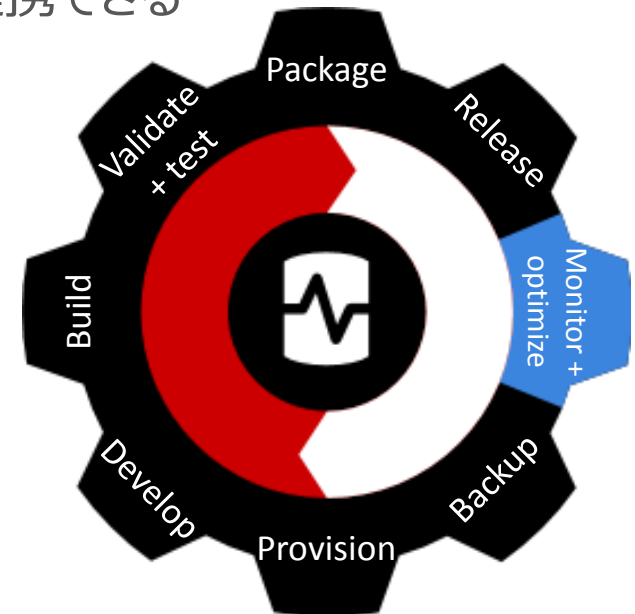




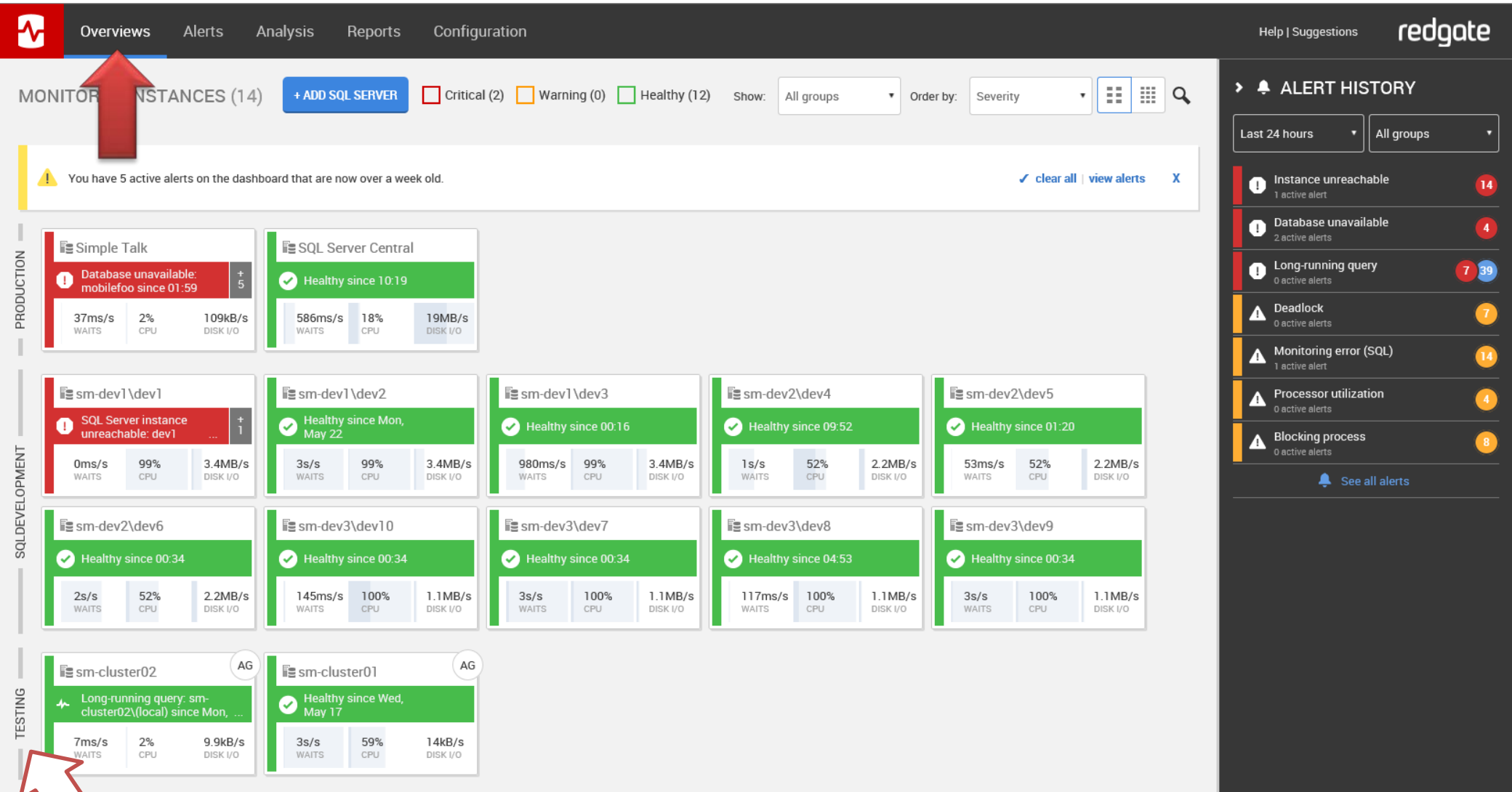
# SQL Monitor



- ◆ 問題発生前に異常を検出
- ◆ いつもと違う動きや負荷を検出
- ◆ 負荷の種類の違いを判別できる
- ◆ 原因究明までの時間を短縮
- ◆ アプリケーションの変更前と変更後のパフォーマンスや影響度合いを比較できる
- ◆ 必要なメンバーに対し、必要なアラートを、適した手段で連携できる
- ◆ 管理業務時間の大幅な短縮
- ◆ バッチの中のどのクエリかが判る
- ◆ 再現テストをする必要がない
- ◆ SQL Server固有のメトリクスを収集できる
  - ラッチアンドロック、バッファキャッシュ
- ◆ 自社開発またはツールを組み合わせるよりも、低コストで容易に実現できる。



# Overview – 各SQL Serverの負荷状況一覧



Overview | Alerts | Analysis | Reports | Configuration

MONITOR INSTANCES (14) + ADD SQL SERVER

Critical (2) Warning (0) Healthy (12) Show: All groups Order by: Severity

You have 5 active alerts on the dashboard that are now over a week old. [clear all](#) [view alerts](#)

**PRODUCTION**

- Simple Talk: Database unavailable: mobilefoo since 01:59 (5 alerts). 37ms/s WAITS, 2% CPU, 109kB/s DISK I/O.
- SQL Server Central: Healthy since 10:19. 586ms/s WAITS, 18% CPU, 19MB/s DISK I/O.

**SQL DEVELOPMENT**

- sm-dev1\dev1: SQL Server instance unreachable: dev1 (1 alert). 0ms/s WAITS, 99% CPU, 3.4MB/s DISK I/O.
- sm-dev1\dev2: Healthy since Mon, May 22. 3s/s WAITS, 99% CPU, 3.4MB/s DISK I/O.
- sm-dev1\dev3: Healthy since 00:16. 980ms/s WAITS, 99% CPU, 3.4MB/s DISK I/O.
- sm-dev2\dev4: Healthy since 09:52. 1s/s WAITS, 52% CPU, 2.2MB/s DISK I/O.
- sm-dev2\dev5: Healthy since 01:20. 53ms/s WAITS, 52% CPU, 2.2MB/s DISK I/O.
- sm-dev2\dev6: Healthy since 00:34. 2s/s WAITS, 52% CPU, 2.2MB/s DISK I/O.
- sm-dev3\dev10: Healthy since 00:34. 145ms/s WAITS, 100% CPU, 1.1MB/s DISK I/O.
- sm-dev3\dev7: Healthy since 00:34. 3s/s WAITS, 100% CPU, 1.1MB/s DISK I/O.
- sm-dev3\dev8: Healthy since 04:53. 117ms/s WAITS, 100% CPU, 1.1MB/s DISK I/O.
- sm-dev3\dev9: Healthy since 00:34. 3s/s WAITS, 100% CPU, 1.1MB/s DISK I/O.

**TESTING**

- sm-cluster02 (AG): Long-running query: sm-cluster02(local) since Mon, ... (1 alert). 7ms/s WAITS, 2% CPU, 9.9kB/s DISK I/O.
- sm-cluster01 (AG): Healthy since Wed, May 17. 3s/s WAITS, 59% CPU, 14kB/s DISK I/O.

**ALERT HISTORY**

- Instance unreachable: 1 active alert (14 total)
- Database unavailable: 2 active alerts (4 total)
- Long-running query: 0 active alerts (7 total, 39 total)
- Deadlock: 0 active alerts (7 total)
- Monitoring error (SQL): 1 active alert (14 total)
- Processor utilization: 0 active alerts (4 total)
- Blocking process: 0 active alerts (8 total)

[See all alerts](#)

サーバーをグループ化して管理

SQL Server 2000, 2005, 2008, 2012, 2014, 2016  
をサポート

# SQL Serverマシンのメトリクス

We now support virtual machines hosted by VMware. Take a look and tell us what you think! [VIEW DOCUMENTATION](#)

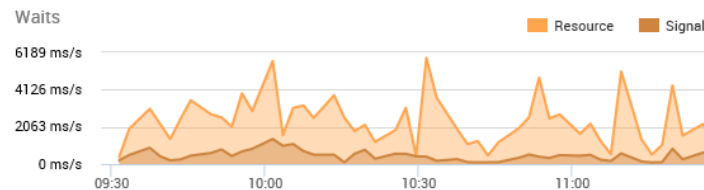
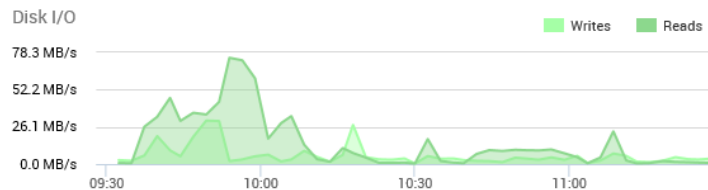
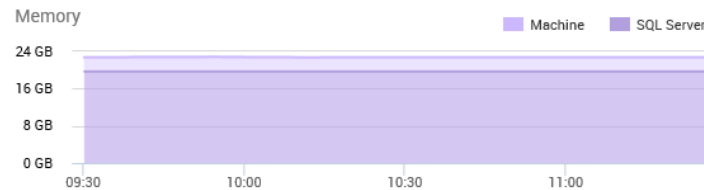
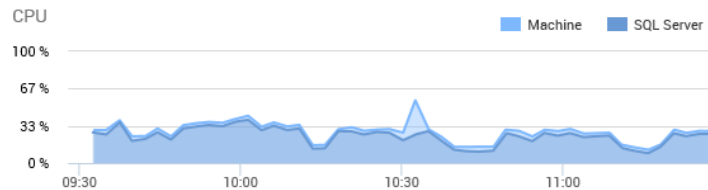
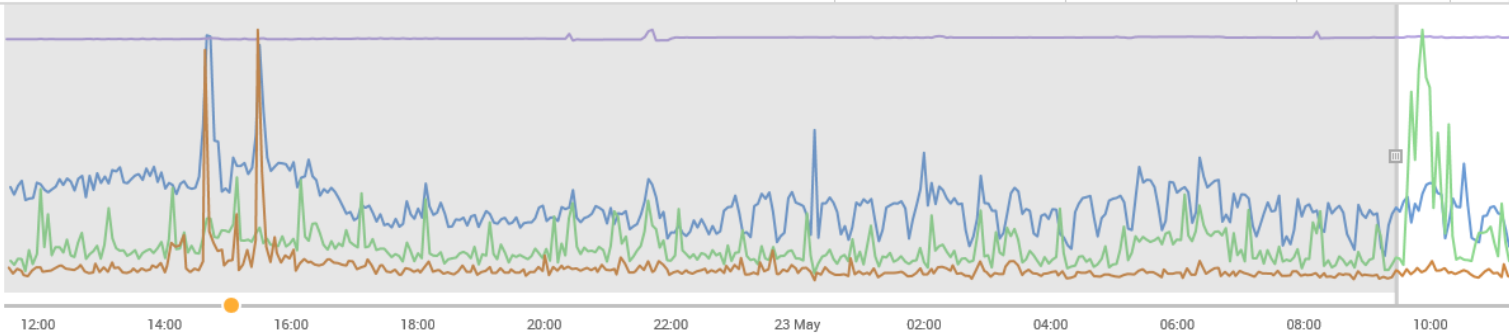
SQL Server Central  
254914-ntclus.lon.intensive.int\ins1

CPU  MEMORY  DISK I/O  WAITS

BASELINE CPU

Tue, 23 May 17 - 11:27

Last 24 hours



### ALERT HISTORY

Cleared  Ended

FROM 09:27 TO 11:27

No alerts raised over the time selected

LAST 24 HOURS

サーバーマシンの状態を表示（本スライドの例では過去24時間）

We now support virtual machines hosted by VMware. Take a look and tell us what you think! [VIEW DOCUMENTATION](#)

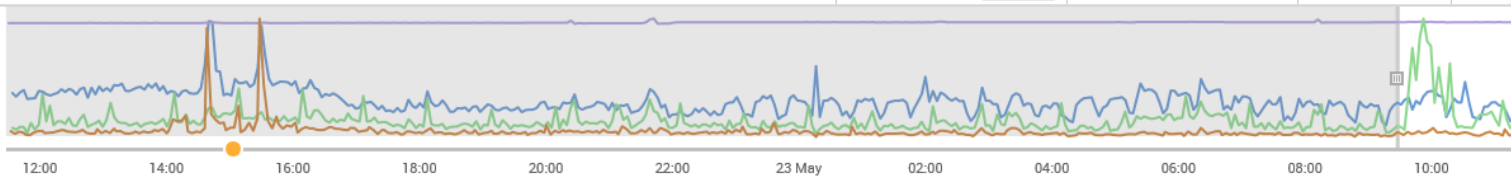
SQL Server Central  
254914-ntclus.lon.intensive.int\ins1

CPU  MEMORY  DISK I/O  WAITS

BASELINE CPU

Tue, 23 May 17 - 11:27

Last 24 hours



SERVER/HOST METRICS FROM 09:27 TO 11:27

TOP 10 QUERIES TOP 10 WAITS

Show as:  Avg. per execution  Totals

QUERY	EXECUTION COUNT	DURATION (MS)	CPU TIME (MS)	PHYSICAL READS	LOGICAL READS	LOGICAL WRITES	DATABASE
SELECT [PostID], PostName, Body, Subject, PostDate, post.Us...	2.00	67,975.00	1,086.00	9,715.00	123,926.00	0.00	CommunityServer
(@p0 int,@p1 nvarchar(33),@p2 nvarchar(4000),@p3 nvarchar...	1.00	26,400.00	0.00	0.00	11.00	2.00	SQLServerCentral
SELECT this_.ContentItemID as ContentI1_31_3_, this_.Comm...	2.00	3,690.00	3,690.00	18,514.00	82,980.00	14.00	SQLServerCentral
(@p0 int,@p1 nvarchar(4000),@p2 nvarchar(4000),@p3 nvarchar...	1.00	15,548.00	15,190.00	0.00	263,983.00	64.00	SQLServerCentral
(@p0 int,@p1 nvarchar(4000),@p2 nvarchar(4000),@p3 nvarchar...	1.00	15,515.00	15,180.00	0.00	263,983.00	67.00	SQLServerCentral
(@p0 int,@p1 nvarchar(4000),@p2 nvarchar(4000))select TOP...	1.00	9,295.00	5,457.00	24.00	192,175.00	9.00	SQLServerCentral
SELECT InstantForum_Users.UserID, 0 FROM InstantForum_Us...	125.00	8,814.00	8,323.00	2,308.00	2,922,650.00	3,111.00	SQLServerCentr...
(@p0 int,@p1 nvarchar(4000),@p2 nvarchar(4000),@p3 nvarchar...	1.00	8,801.00	5,589.00	24.00	193,373.00	10.00	SQLServerCentral
(@p0 int,@p1 nvarchar(4000),@p2 nvarchar(4000),@p3 nvarchar...	1.00	7,824.00	5,514.00	24.00	192,770.00	10.00	SQLServerCentral
(@p0 nvarchar(4000),@p1 nvarchar(4000),@p2 nvarchar(4000)...	1.00	7,780.00	5,467.00	0.00	168,397.00	6.00	SQLServerCentral

ALERT HISTORY

Cleared  Ended

FROM 09:27 TO 11:27

No alerts raised over the time selected

LAST 24 HOURS

指定時間内で負荷の高かったクエリトップ10を表示

### QUERY PLAN (DOWNLOAD)

**Statements**

0% DECLARE @INTANO...

0% ;DECLARE @STARTI...

**73% ;SELECT @STARTI...**

0% ;SET ROWCOUNT 15

27% ;SELECT T.POSTID, (...

```

;SELECT @StartID = t.LastPosterDate FROM InstantForum_Topics AS t WITH (nolock) LEFT OUTER JOIN InstantASP_Users AS u WITH (nolock) ON t.UserID = u.UserID JO...
                
```

**Expensive operations**

- 51.86% - Clustered Index Seek  
IO: 8.47% CPU: 0.91%
- 45.56% - Clustered Index Seek  
IO: 8.47% CPU: 0.91%

The diagram illustrates the execution plan for the query. It starts with a **SELECT** operator (0.00% IO, 0.00% CPU). This is followed by a **Sort** operator (0.7% IO, 15.29% CPU). The main part of the plan consists of several **Nested Loops** operators. The first is an inner join (0.61% IO, 61.41% CPU). This is followed by another inner join (0.00% IO, 0.19% CPU). The next is a **Clustered Index Scan** on [InstantASP\_Roles] (8.47% IO, 0.98% CPU). This is followed by a **Clustered Index Seek** on [InstantASP\_Roles] (8.47% IO, 0.91% CPU). The plan then branches into two paths. The left path includes a **Table Spool** (27.11% IO, 0.91% CPU) and another **Nested Loops** (left outer join) (0.00% IO, 7.68% CPU). The right path includes a **Compute Scalar** (0.00% IO, 0.18% CPU). The final output is a **Compute Scalar** (0.00% IO, 0.18% CPU).

! We now support virtual machines hosted by VMware. Take a look and tell us what you think!

[VIEW DOCUMENTATION](#)

SQL Server Central  
254914-ntclus.lon.intensive.int\ins1

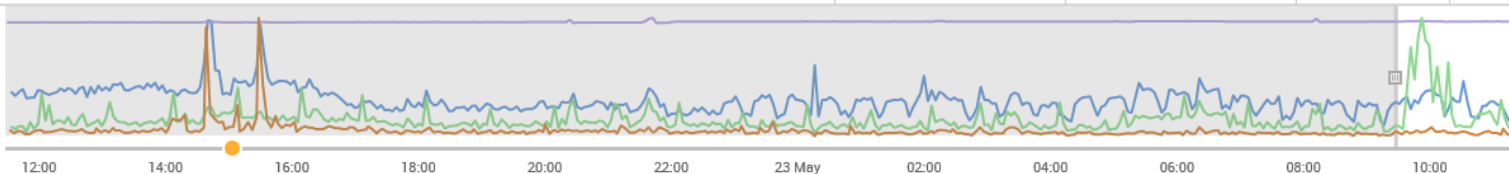
CPU  MEMORY  DISK I/O  WAITS

BASELINE

CPU

Tue, 23 May 17 - 11:27

Last 24 hours



SERVER/HOST METRICS FROM 09:27 TO 11:27

TOP 10 QUERIES **TOP 10 WAITS**

WAIT TYPE	DESCRIPTION	WAITING TASK	WAIT TIME (MS)	AVG. WAIT TIME (MS)	SIGNAL WAIT TIME (MS)
CXPACKET	Parallel queries are waiting on threads	1,198,634.00	12,925,229.00	11.00	727,490.00
SOS_SCHEDULER_YIELD	A process has yielded CPU	3,061,754.00	2,496,092.00	1.00	2,494,549.00
PAGEIOLATCH_SH	Waiting on a latch to read data from disk into memory	212,566.00	1,351,257.00	6.00	8,128.00
OLEDB	Waiting on calls to OLEDB resources	147,546,138.00	1,292,636.00	0.00	0.00
ASYNC_NETWORK_IO	Network waiting for client to consume output buffer	510,087.00	759,528.00	1.00	96,917.00
BACKUPIO	Backup task waiting for data or an available buffer	63,587.00	739,829.00	12.00	6,874.00
WRITELOG	Waiting for a log flush to disk	93,794.00	317,620.00	3.00	34,979.00
IO_COMPLETION	Waiting for I/Os to complete	196,340.00	206,402.00	1.00	6,657.00
MSQL_XP	Waiting for an extended stored procedure to finish	2,789.00	197,569.00	71.00	0.00
PREEMPTIVE_OS_GETPROCADDRE...	SQL Server has switched to preemptive mode	2,789.00	197,532.00	71.00	0.00

ALERT HISTORY

Cleared  Ended

FROM 09:27 TO 11:27

No alerts raised over the time selected

LAST 24 HOURS

最も時間を要したウェイトのトップ10を表示

We now support virtual machines hosted by VMware. Take a look and tell us what you think! [VIEW DOCUMENTATION](#)

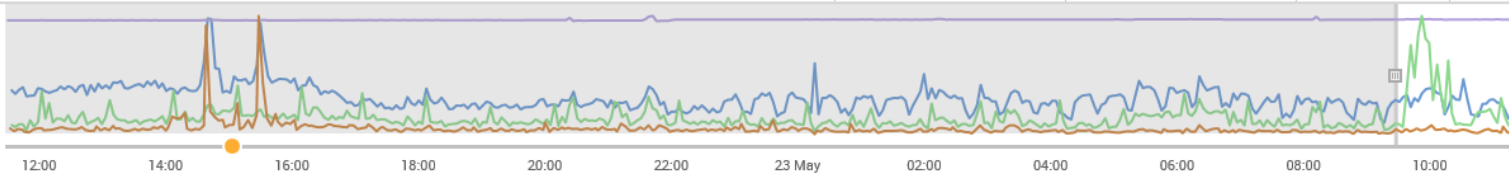
SQL Server Central  
254914-ntclus.lon.intensive.int\ins1

CPU  MEMORY  DISK I/O  WAITS

BASELINE CPU

Tue, 23 May 17 - 11:27

Last 24 hours



SERVER/HOST METRICS FROM 09:27 TO 11:27

TOP 10 QUERIES **TOP 10 WAITS**

WAIT TYPE	WAIT DESCRIPTION	WAITING TASK	WAIT TIME (MS)	AVG. WAIT TIME (MS)	SIGNAL WAIT TIME (MS)
CXPACKET	Parallelized queries are waiting on threads	1,198,634.00	12,925,229.00	11.00	727,490.00
SOS_SCHEDULER_YIELD	A process has yielded CPU	3,061,754.00	2,496,092.00	1.00	2,494,549.00
PAGEIOLATCH_SH	Waiting on a latch to read data from disk into memory	212,566.00	1,351,257.00	6.00	8,128.00
OLEDB	Waiting on calls to OLEDB resources	147,546,138.00	1,292,636.00	0.00	0.00
ASYNC_NETWORK_IO	Network waiting for client to consume output buffer	510,087.00	759,528.00	1.00	96,917.00
BACKUPIO	Backup task waiting for data or an available buffer	63,587.00	739,829.00	12.00	6,874.00
WRITELOG	Waiting for a log flush to disk	93,794.00	317,620.00	3.00	34,979.00
IO_COMPLETION	Waiting for I/Os to complete	196,340.00	206,402.00	1.00	6,657.00
MSQL_XP	Waiting for an extended stored procedure to finish	2,789.00	197,569.00	71.00	0.00
PREEMPTIVE_OS_GETPROCADDRE...	SQL Server has switched to preemptive mode	2,789.00	197,532.00	71.00	0.00

## ALERT HISTORY

Cleared  Ended

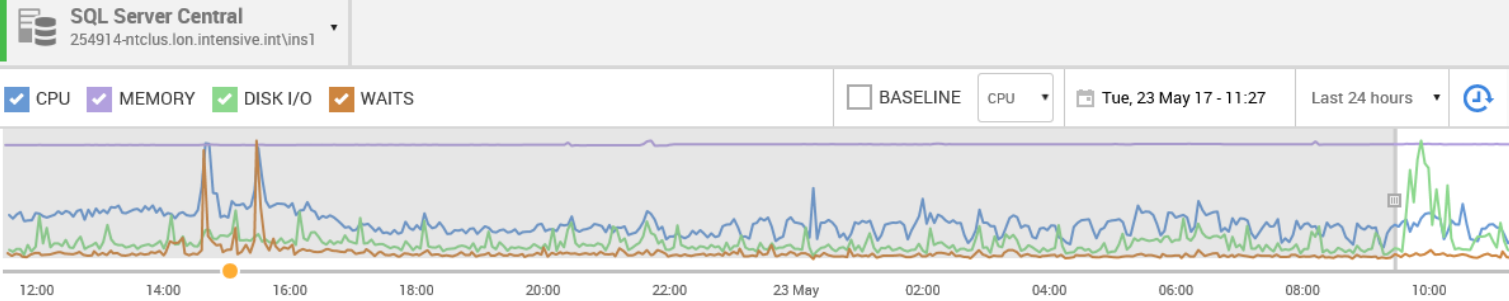
FROM 09:27 TO 11:27

No alerts raised over the time selected

LAST 24 HOURS



# トップ10 ウェイト - 詳細表示



SERVER/HOST METRICS FROM 09:27 TO 11:27

TOP 10 QUERIES TOP 10 WAITS

WAIT TYPE	AFFECTED QUERIES	EXECUTION COUNT	DURATION (MS)	CPU TIME (MS)	PHYSICAL READS	LOGICAL READS	LOGICAL WRITES	DATABASE
CXPACKET								
SOS_SCHEDULER_YIELD	SELECT this_.ContentItemID as ContentI1_31_3_... 2.00	23,432.00	23,432.00	3,690.00	18,514.00	82,980.00	14.00	SQLServerC...
PAGEIOLATCH_SH	SELECT InstantForum_Users.UserID, 0 FROM Inst... 125.00	8,814.00	8,814.00	8,323.00	2,308.00	2,922,650.00	3,111.00	SQLServerC...
OLEDB	(@p0 int,@p1 datetime,@p2 datetime)SELECT thi... 4.00	4,314.00	4,314.00	10,859.00	25,142.00	88,273.00	99.00	SQLServerC...
ASYNC_NETWORK_IO	WITH cteTotal AS (----- Create the required... 55.00	2,521.00	2,521.00	3,277.00	2,296.00	12,970.00	0.00	SQLServerC...
BACKUPIO	WITH RecentTopics (TopicID, ForumID, DateStam... 56.00	2,429.00	2,429.00	5,024.00	1,673.00	2,985,544.00	17.00	SQLServerC...
WRITELOG	DELETE FROM [SingleSignon].dbo.MemberRoles WH... 1.00	2,377.00	2,377.00	3,067.00	31,409.00	49,677.00	8.00	SQLServerC...
IO_COMPLETION	UPDATE dbo.ContentItems SET PopularityRank =... 1.00	1,527.00	1,527.00	3,489.00	6,573.00	480,860.00	1,345.00	SQLServerC...
MSQL_XP	SELECT @StartID = t.LastPosterDate FROM Insta... 4.00	310.00	310.00	1,241.00	242.00	16,369.00	24.00	SQLServerC...

## ALERT HISTORY

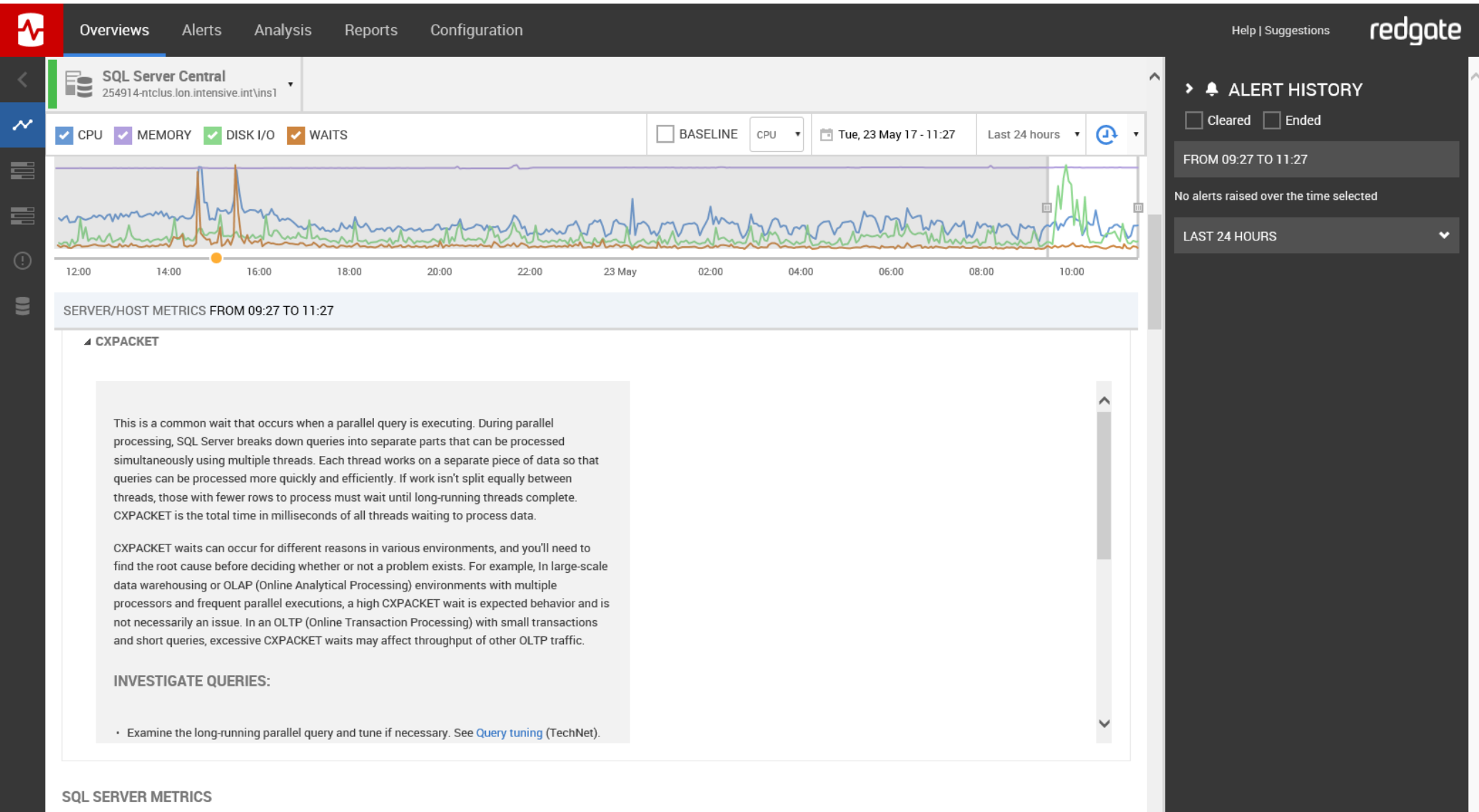
Cleared  Ended

FROM 09:27 TO 11:27

No alerts raised over the time selected

LAST 24 HOURS

影響を受けたクエリを表示。タスク件数、所要時間、CPUの状態等



SQL Server Central  
254914-ntclus.lon.intensive.int\ins1

CPU  MEMORY  DISK I/O  WAITS

BASELINE CPU Tue, 23 May 17 - 11:27 Last 24 hours

SERVER/HOST METRICS FROM 09:27 TO 11:27

**CXPACKET**

This is a common wait that occurs when a parallel query is executing. During parallel processing, SQL Server breaks down queries into separate parts that can be processed simultaneously using multiple threads. Each thread works on a separate piece of data so that queries can be processed more quickly and efficiently. If work isn't split equally between threads, those with fewer rows to process must wait until long-running threads complete. CXPACKET is the total time in milliseconds of all threads waiting to process data.

CXPACKET waits can occur for different reasons in various environments, and you'll need to find the root cause before deciding whether or not a problem exists. For example, in large-scale data warehousing or OLAP (Online Analytical Processing) environments with multiple processors and frequent parallel executions, a high CXPACKET wait is expected behavior and is not necessarily an issue. In an OLTP (Online Transaction Processing) with small transactions and short queries, excessive CXPACKET waits may affect throughput of other OLTP traffic.

**INVESTIGATE QUERIES:**

- Examine the long-running parallel query and tune if necessary. See [Query tuning](#) (TechNet).

ALERT HISTORY

Cleared  Ended

FROM 09:27 TO 11:27

No alerts raised over the time selected

LAST 24 HOURS

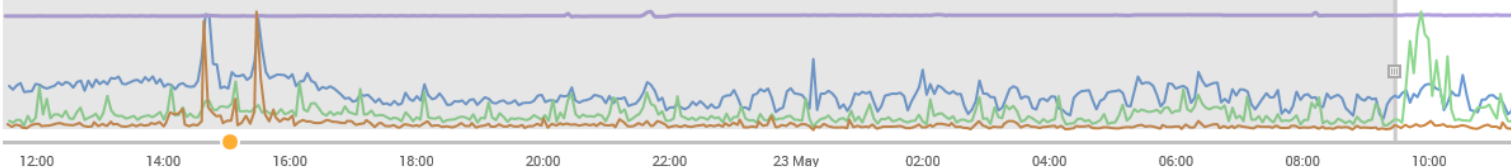
関連する参考情報をTechNetから引用。

# サーバーマシンのメトリクス

**SQL Server Central**  
 254914-ntclus.lon.intensive.int\ins1

CPU
  MEMORY
  DISK I/O
  WAITS

BASELINE



## SERVER/HOST METRICS FROM 09:27 TO 11:27

### HOST MACHINE METRICS (252314-SQL1)

#### NETWORK UTILIZATION



#### PERFORMANCE



#### DISK USAGE

DISK	SPACE USED (GB)	AVG. READ TIME	AVG. WRITE TIME	TRANSFERS/SEC
C_DRIVE (C:)	 84.21 GB free of 136.1 GB	 0.79 ms	 0.14 ms	 28.59
D_DRIVE (D:)	 62.39 GB free of 136.1 GB	 0.00 ms	 0.00 ms	 0.00
SAN_MSRTC (M:)	 0.96 GB free of 1.00 GB	 0.00 ms	 0.00 ms	 0.00
INS1 Data (S:)	 119.3 GB free of 267.3 GB	 12.32 ms	 38.60 ms	 24.22

## ALERT HISTORY

Cleared
  Ended

FROM 09:27 TO 11:27

No alerts raised over the time selected

# SQL Serverメトリクス

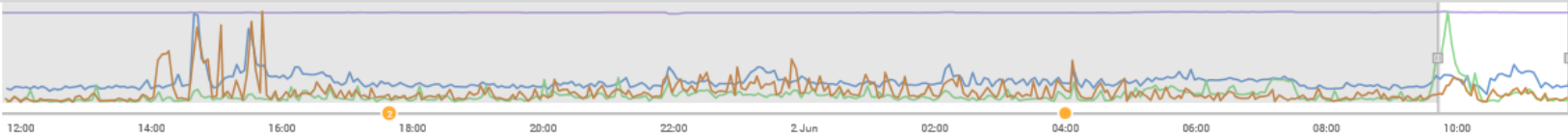
Overviews Alerts Analysis Reports Configuration

Help | Suggestions redgate

SQL Server Central  
254914-ntolus.lon.intensive.int\lms1

CPU  MEMORY  DISK I/O  WAITS

BASELINE CPU Fri, 2 Jun 17 - 11:42 Last 24 hours



### ALERT HISTORY

Cleared  Ended

FROM 09:42 TO 11:42

No alerts raised over the time selected

LAST 24 HOURS

SQL USER PROCESSES FROM 09:42 TO 11:42

## SQL SERVER METRICS

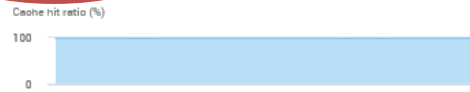
### GENERAL



### LATCHES AND LOCKS



### BUFFER CACHE



### SERVER PROPERTIES

Edition: Standard Edition (64-bit)  
Version: SQL Server 2008 SP4 (10.0.6000.29)  
Collation: Latin1\_General\_CI\_AS

# SQL ユーザープロセス

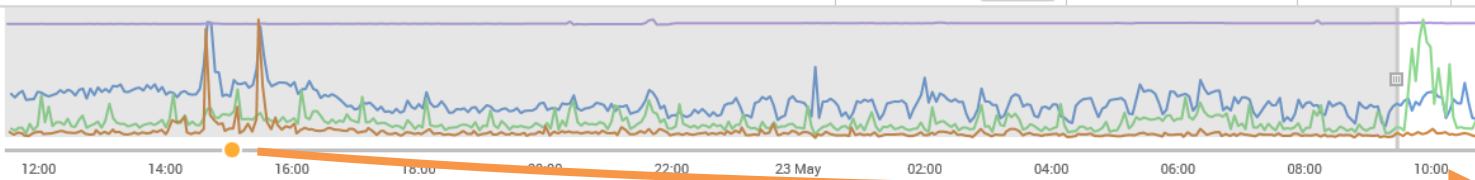
SQL Server Central  
254914-ntclus.lon.intensive.int\inst1

CPU  MEMORY  DISK I/O  WAITS

BASELINE  CPU

Tue, 23 May 17 - 11:27

Last 24 hours



SQL USER PROCESSES FROM 09:27 TO 11:27

## SQL USER PROCESSES (TOP 10 BY CPU)

SESSION ID	LOGIN TIME	HOST	PROGRAM NAME	COMMAND	STATUS
58	23 May 2017 09:35	254915-SQLCLUS	SQLCMD	DBCC TABLE CHECK	runnable
70	23 May 2017 09:54	SSC-WEB1	.Net SqlClient Data Provider	INSERT	runnable
58	23 May 2017 10:05	254915-SQLCLUS	SQLCMD	UPDATE STATISTIC	suspended
93	12 Apr 2017 16:58	254915-SQLCLUS	SQLAgent - Alert Engine	AWAITING COMMAND	sleeping

## PROCESSES (TOP 10 BY CPU)

NAME	STARTED	PROCESSOR USAGE	MEMORY USAGE
sqlservr	12 Apr 2017 16:57	25.52%	83%
clussvc	12 Apr 2017 16:54	0.58%	24%
svchost#4	12 Apr 2017 16:53	0.47%	28%

## ALERT HISTORY

Cleared  Ended

FROM 12:07 TO 16:26

**Long-running query**  
Raised at 15:04

**Deadlock**  
Raised at 16:01

LAST 24 HOURS

### DEADLOCK

OCCURRENCES (5)

16:01, 24 May - Active

ALERT DETAILS



Deadlocked process:

85

Victim process:

74

Lock type:

Index/(Key)

ALERT DESCRIPTION

NOTES (0)

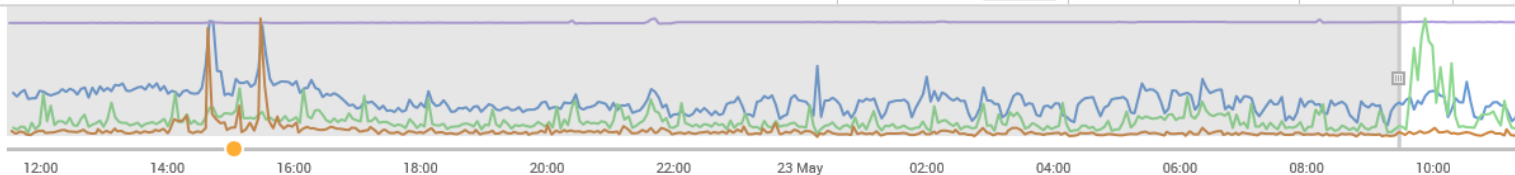
SQL Server Central  
254914-ntclus.lon.intensive.int\ins1

CPU
  MEMORY
  DISK I/O
  WAITS

BASELINE

Tue, 23 May 17 - 11:27

Last 24 hours



ERROR LOG FROM 09:27 TO 11:27

ERROR LOG

Results per page 10 ← 1-10 of 38 →

TIME	PROCESS	ERROR
23 May 2017 11:00	Backup	Log was backed up. <a href="#">Show more</a>
23 May 2017 11:00	Backup	Log was backed up. <a href="#">Show more</a>
23 May 2017 11:00	Backup	Log was backed up. Database: SingleSignOn, creation date(time): 2009/11/26(09:11:38), first LSN: 136732:120908:1, last LSN: 136732:120916:1, number of dump devices: 7, device information: (FILE=1, TYPE=VIRTUAL_DEVICE: {'SQLBACKUP_CA067B15-6170-4207-AB93-444F923D942C', 'SQLBACKUP_CA067B15-6170-4207-AB93-444F923D942C01', 'SQLBACKUP_CA067B15-6170-4207-AB93-444F923D942C02', 'SQLBACKUP_CA067B15-6170-4207-AB93-444F923D942C03', 'SQLBACKUP_CA067B15-6170-4207-AB93-444F923D942C04', 'SQLBACKUP_CA067B15-6170-4207-AB93-444F923D942C05', 'SQLBACKUP_CA067B15-6170-4207-AB93-444F923D942C06'}). This is an informational message only. No user action is required. <a href="#">Show less</a>
23 May 2017 11:00	Backup	Log was backed up. <a href="#">Show more</a>
23 May 2017 11:00	Backup	Log was backed up. <a href="#">Show more</a>
23 May 2017 11:00	Backup	Log was backed up. <a href="#">Show more</a>
23 May 2017 10:31	Backup	Log was backed up. <a href="#">Show more</a>
23 May 2017 10:30	Backup	Log was backed up. <a href="#">Show more</a>
23 May 2017 10:30	Backup	Log was backed up. <a href="#">Show more</a>

ALERT HISTORY

Cleared
  Ended

FROM 09:27 TO 11:27

No alerts raised over the time selected

LAST 24 HOURS

# データベースのステータス一覧

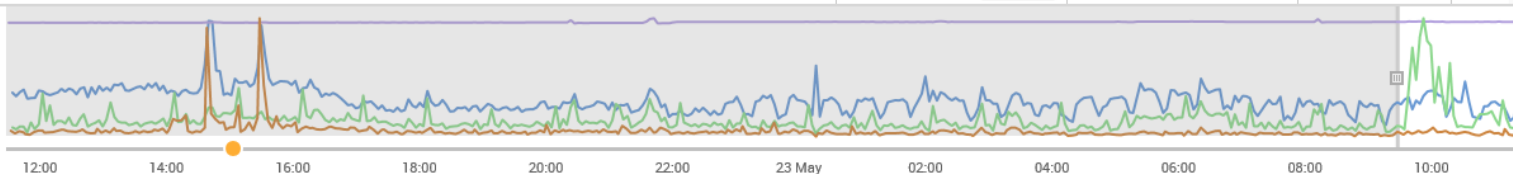
SQL Server Central  
254914-ntclus.lon.intensive.int\ins1

CPU  MEMORY  DISK I/O  WAITS

BASELINE CPU

Tue, 23 May 17 - 11:27

Last 24 hours



DATABASES FROM 09:27 TO 11:27

DATABASES Search databases

Results per page 10 ← 1-10 of 12 →

NAME	AVAILABILITY	TRANSACTIONS/SEC	DATABASE SIZE
CommunityServer	ONLINE	0.07	2000 MB
DatabaseWeekly	ONLINE	0.03	500 MB
ips_notifications	ONLINE	0.03	100 MB
master	ONLINE	73.15	50 MB
model	ONLINE	0.00	50 MB
msdb	ONLINE	0.18	500 MB
Prettifier	ONLINE	0.03	50 MB
SingleSignOn	ONLINE	0.03	3000 MB
SQLServerCentral	ONLINE	2.80	48000 MB
SQLServerCentralForums	ONLINE	29.41	14000 MB

## ALERT HISTORY

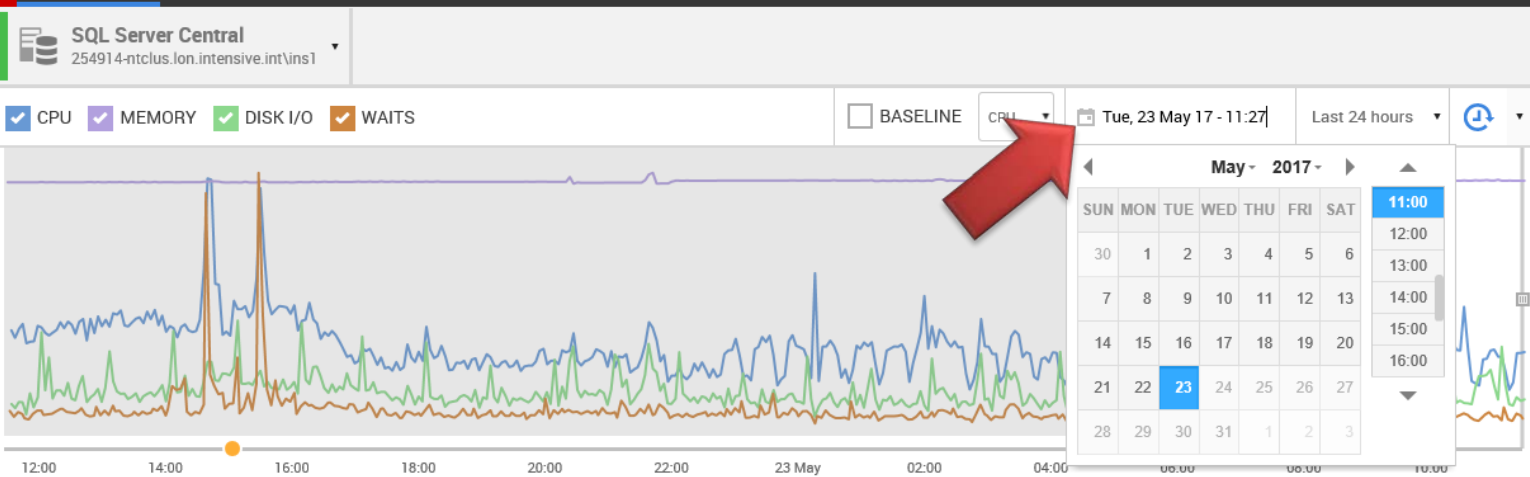
Cleared  Ended

FROM 09:27 TO 11:27

No alerts raised over the time selected

LAST 24 HOURS

# 過去データの取得



## ALERT HISTORY

Cleared  Ended

FROM 09:27 TO 11:27

No alerts raised over the time selected

LAST 24 HOURS

遡って確認したい日付と時刻を選択



# 過去の同時時間帯との比較



## Analysis Graph

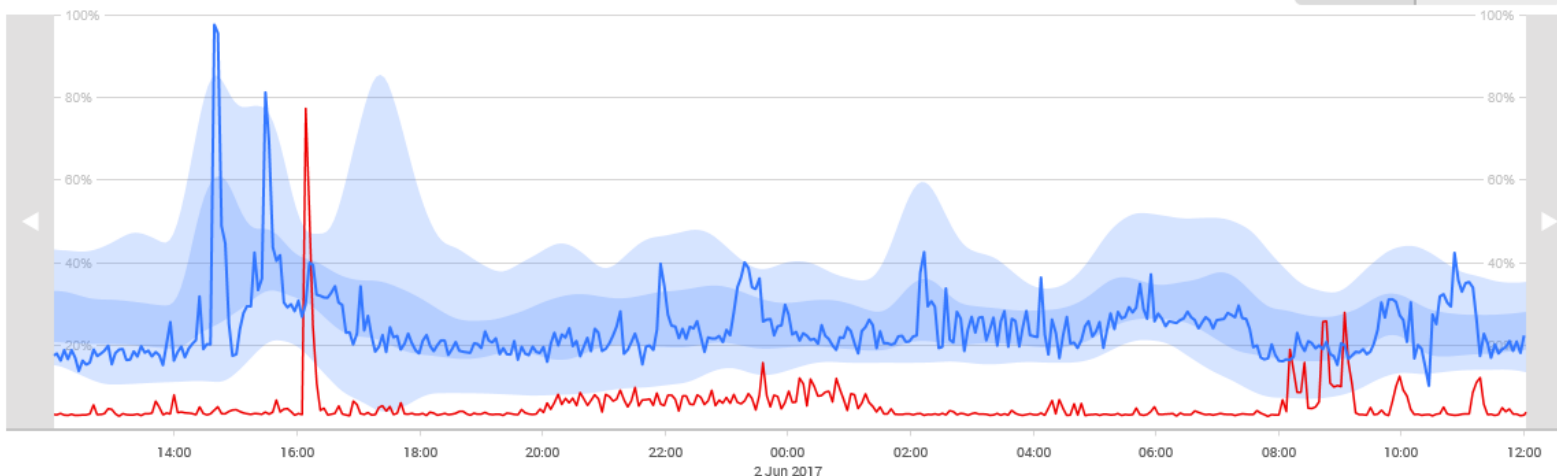
Time range: 24 hours Thu, Jun 1 12:02 → Fri, Jun 2 12:02

Compare with: 7 days earlier Thu, May 25 12:02 → Fri, May 26 12:02

Extend baseline by: 2 3 4 5 6 7 8 9 10 previous time ranges

Last 1h Last 6h Last 24h Last 7 days Today This week Export (csv)

LINES REGIONS



- Machine: processor time 252314-sq1
- Machine: processor time 252315-sq2

Show: Machine metrics

- Machine: processor time
- Avg. CPU queue length
- Machine: memory used
- Memory pages/sec
- Network utilization
- Disk used bytes
- Disk used %
- Disk free bytes

For: 254914-ntclus.lon.intensive.int (All)

- smcluster1.smdemo.local 252314-sq1
- sm-dev1 252315-sq2
- sm-dev2
- sm-dev3

ADD ANOTHER METRIC

CLEAR ALL

Description Statistics

### MACHINE: PROCESSOR TIME

Total processor utilization (averaged across all processor cores) on the physical host Windows machine.

Equivalent PerfMon counter: Processor: % Processor Time (\_Total)

Explanation: This is a general indicator of how busy a

## Alert Inbox : All Servers

### GLOBAL FILTERS

- All alerts
- Unread
- Active
- Cleared

### MONITORED SERVERS

- All Servers (513)
- Production (213)
- SQLDevelopment (29...)
- Testing (2)

### ACTIONS

- Create custom metrics and alerts
- Manage monitored servers
- Manage groups
- Configure alerts
- Subscribe to RSS alert feed

To receive email alerts you must first enter your [Mail Server settings](#).

Filter: Custom \* CLEAR FILTER Custom dashboard filter, so advanced options disabled.

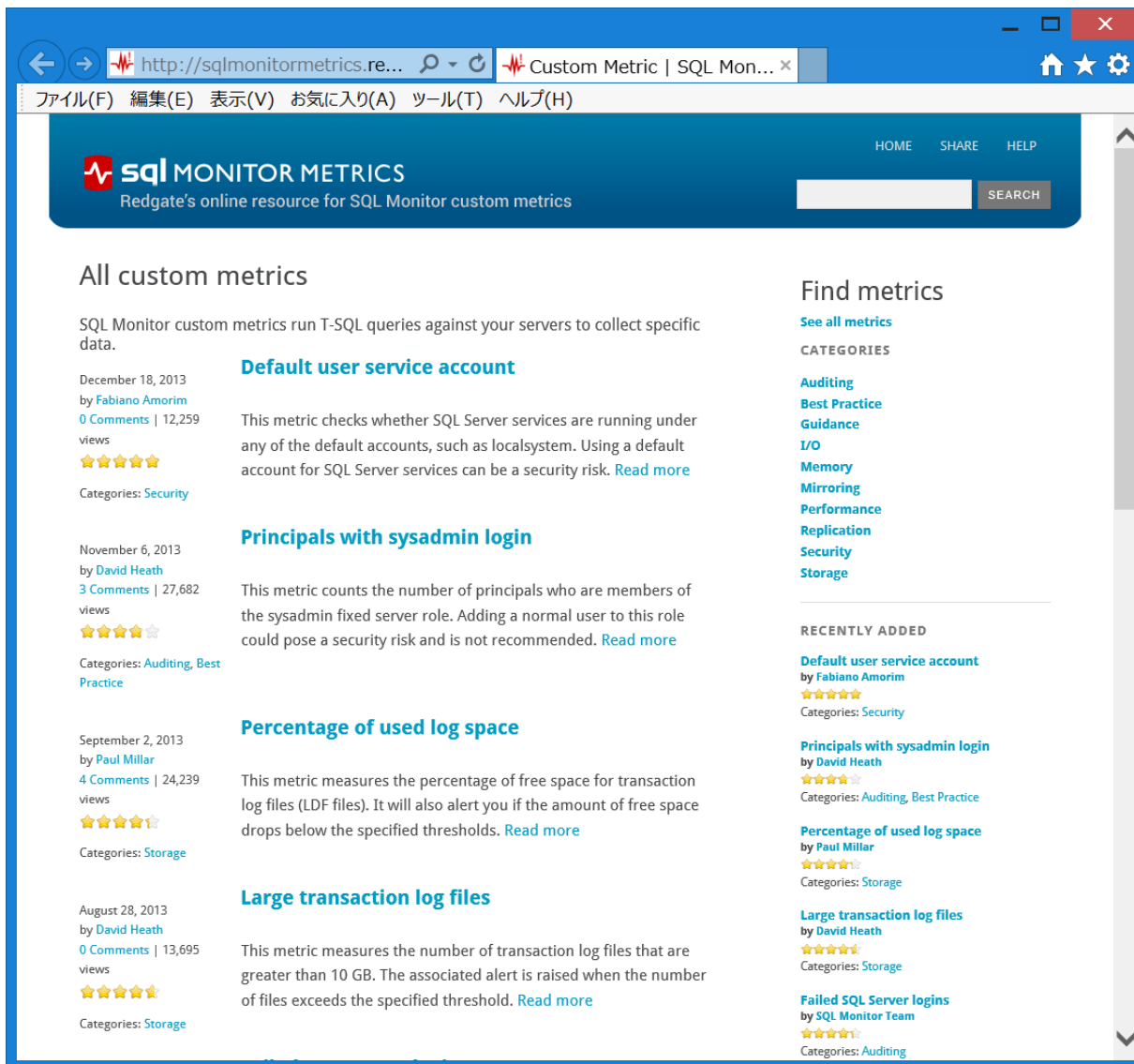
Showing 1-7 of 7 << Newest < Newer Older > Oldest >>

TYPE	OBJECT	SEVERITY	STATUS	TIME	ACTIONS
<input type="checkbox"/> SQL Server instance unreachable	sm-dev\dev	High	Active	2017-05-24 12:23	[Icons]
<input type="checkbox"/> SQL Server instance unreachable	sm-dev\dev	High	Active	2017-05-24 12:23	[Icons]
<input type="checkbox"/> SQL Server instance unreachable	sm-dev\dev	High	Active	2017-05-24 12:23	[Icons]
<input type="checkbox"/> SQL Server instance unreachable	sm-dev\dev	High	Active	2017-05-24 12:23	[Icons]
<input type="checkbox"/> SQL Server instance unreachable	sm-dev\dev	High	Active	2017-05-24 12:23	[Icons]
<input type="checkbox"/> SQL Server instance unreachable	sm-dev\dev	High	Active	2017-05-24 12:23	[Icons]
<input type="checkbox"/> SQL Server instance unreachable	sm-dev\dev	High	Active	2017-05-24 12:23	[Icons]



アラートの詳細を表示。カスタマイズ可能なアラートは標準装備の40種類に加え、専用サイトからダウンロードして入手可能

http://sqlmonitormetrics.red-gate.com/category/custom-metric/

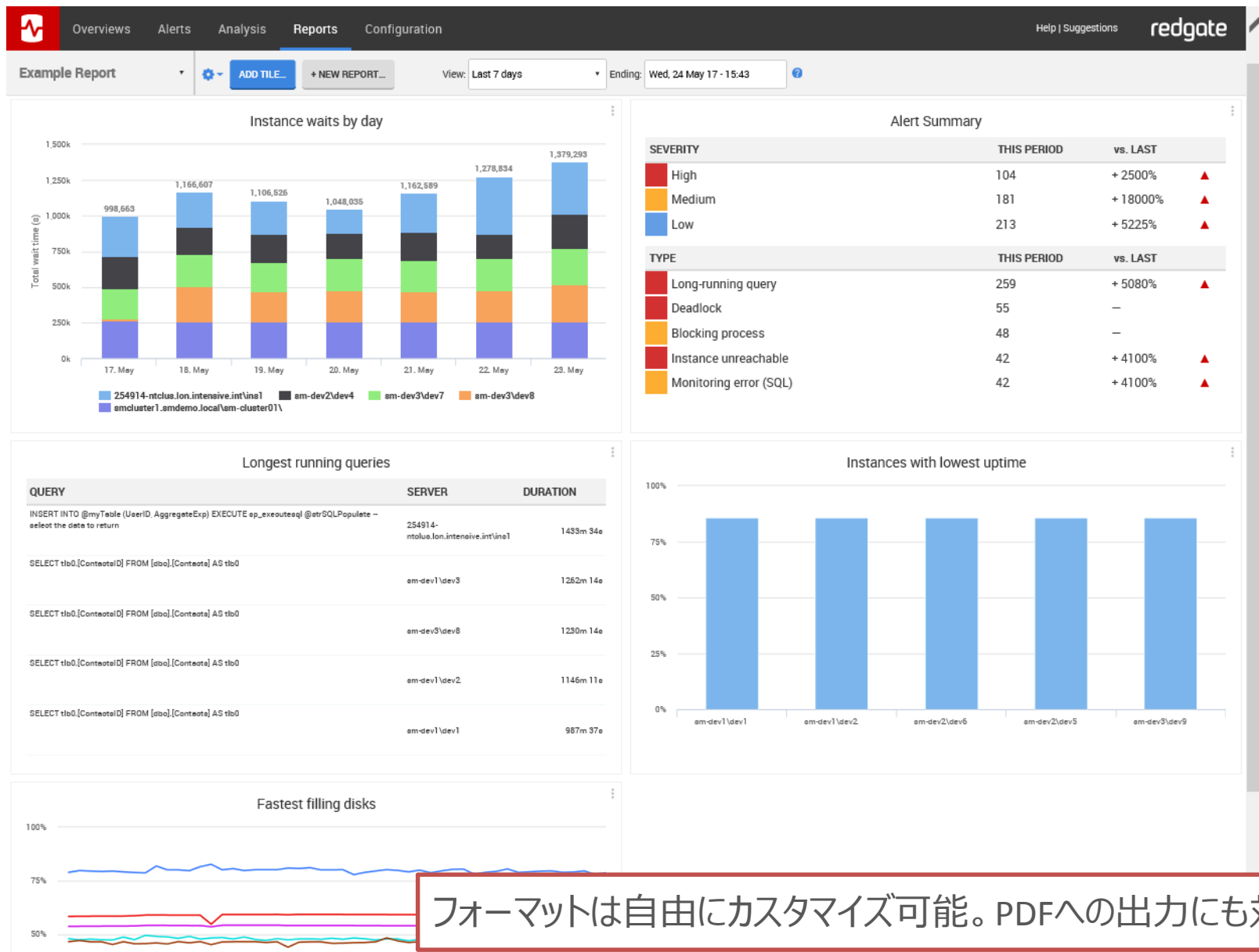


The screenshot shows a web browser window displaying the Redgate SQL Monitor Metrics website. The page title is "Custom Metric | SQL Mon...". The main content area is titled "All custom metrics" and lists several metrics with their details:

- Default user service account**  
December 18, 2013 by Fabiano Amorim  
0 Comments | 12,259 views  
★★★★★  
Categories: Security  
This metric checks whether SQL Server services are running under any of the default accounts, such as localsystem. Using a default account for SQL Server services can be a security risk. [Read more](#)
- Principals with sysadmin login**  
November 6, 2013 by David Heath  
3 Comments | 27,682 views  
★★★★★  
Categories: Auditing, Best Practice  
This metric counts the number of principals who are members of the sysadmin fixed server role. Adding a normal user to this role could pose a security risk and is not recommended. [Read more](#)
- Percentage of used log space**  
September 2, 2013 by Paul Millar  
4 Comments | 24,239 views  
★★★★★  
Categories: Storage  
This metric measures the percentage of free space for transaction log files (LDF files). It will also alert you if the amount of free space drops below the specified thresholds. [Read more](#)
- Large transaction log files**  
August 28, 2013 by David Heath  
0 Comments | 13,695 views  
★★★★★  
Categories: Storage  
This metric measures the number of transaction log files that are greater than 10 GB. The associated alert is raised when the number of files exceeds the specified threshold. [Read more](#)

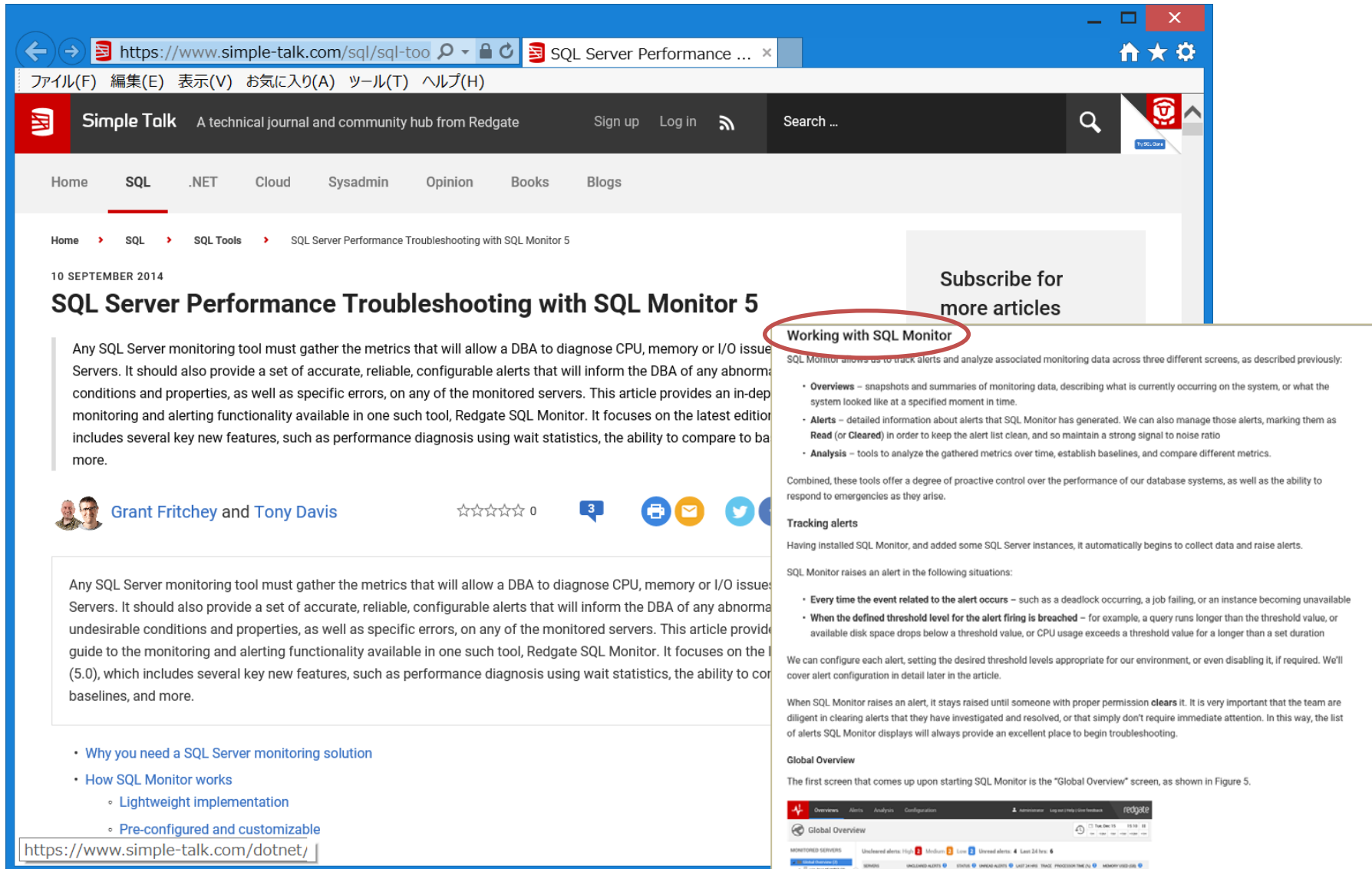
On the right side, there is a "Find metrics" section with a list of categories: Auditing, Best Practice, Guidance, I/O, Memory, Mirroring, Performance, Replication, Security, and Storage. Below this is a "RECENTLY ADDED" section listing the same metrics as the main content area.

# 稼働状況レポートの発行



フォーマットは自由にカスタマイズ可能。PDFへの出力にも対応。

<https://www.simple-talk.com/sql/sql-tools/sql-server-performance-troubleshooting-with-sql-monitor-5/>



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10 SEPTEMBER 2014

## SQL Server Performance Troubleshooting with SQL Monitor 5

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**Working with SQL Monitor**

SQL Monitor allows us to track alerts and analyze associated monitoring data across three different screens, as described previously:

- **Overviews** – snapshots and summaries of monitoring data, describing what is currently occurring on the system, or what the system looked like at a specified moment in time.
- **Alerts** – detailed information about alerts that SQL Monitor has generated. We can also manage those alerts, marking them as **Read (or Cleared)** in order to keep the alert list clean, and so maintain a strong signal to noise ratio
- **Analysis** – tools to analyze the gathered metrics over time, establish baselines, and compare different metrics.

Combined, these tools offer a degree of proactive control over the performance of our database systems, as well as the ability to respond to emergencies as they arise.

### Tracking alerts

Having installed SQL Monitor, and added some SQL Server instances, it automatically begins to collect data and raise alerts.

SQL Monitor raises an alert in the following situations:


- **Every time the event related to the alert occurs** – such as a deadlock occurring, a job failing, or an instance becoming unavailable
- **When the defined threshold level for the alert firing is breached** – for example, a query runs longer than the threshold value, or available disk space drops below a threshold value, or CPU usage exceeds a threshold value for a longer than a set duration

We can configure each alert, setting the desired threshold levels appropriate for our environment, or even disabling it, if required. We'll cover alert configuration in detail later in the article.

When SQL Monitor raises an alert, it stays raised until someone with proper permission **clears** it. It is very important that the team are diligent in clearing alerts that they have investigated and resolved, or that simply don't require immediate attention. In this way, the list of alerts SQL Monitor displays will always provide an excellent place to begin troubleshooting.

### Global Overview

The first screen that comes up upon starting SQL Monitor is the "Global Overview" screen, as shown in Figure 5.

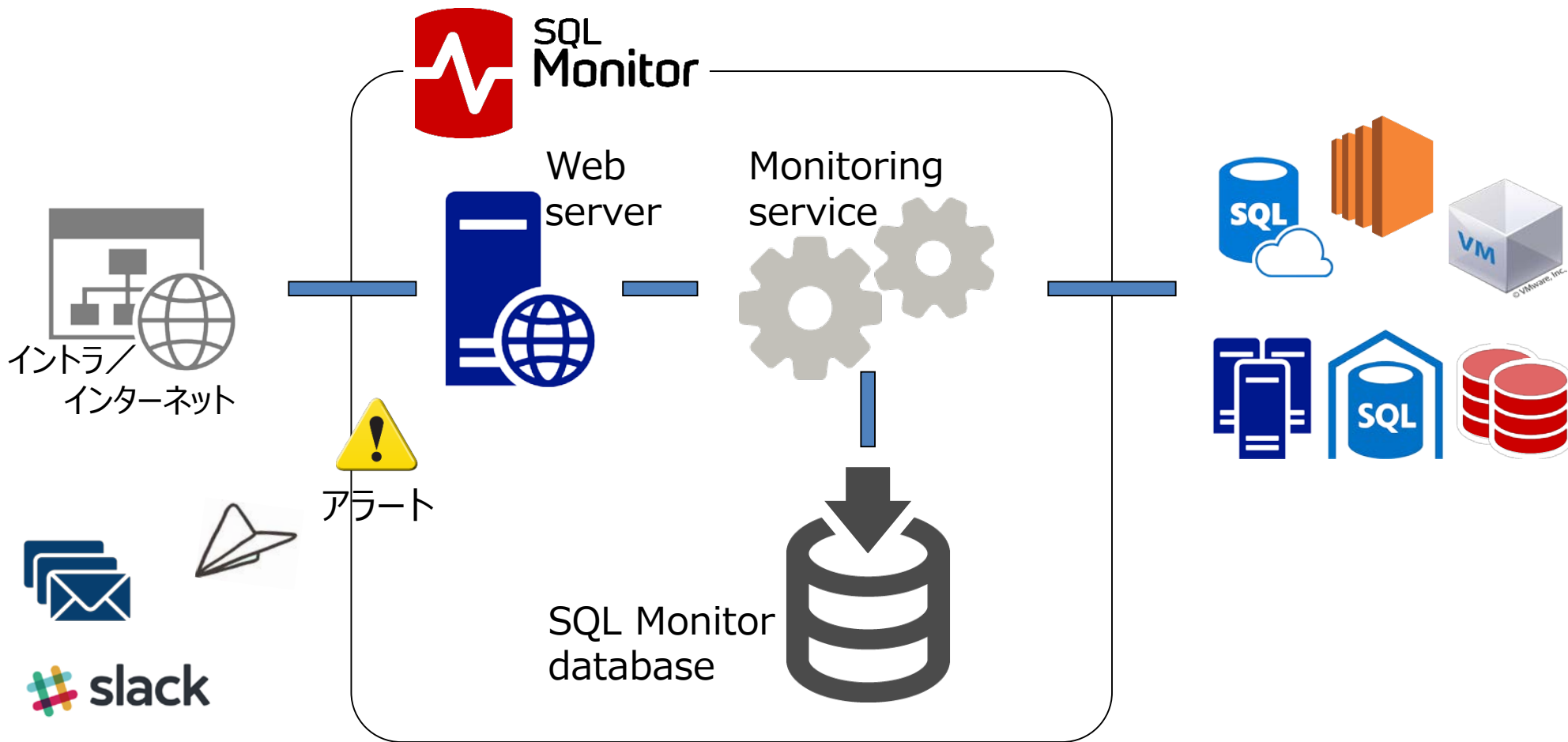


	SQL Monitor	SSMS
SQL Serverを環境ごとにグループ化し、1画面で表示	○	○
指定した時間帯のTOP10クエリの検出	○	△ ※1
指定した時間帯のTOP10ウェイトの検出	○	△ ※2
過去の統計情報の取得	○	×
TechNet関連情報の画面内表示	○	×
クエリパフォーマンス、ジョブの健全性など詳細なアラート	○	×
メール以外のアラートの配信手段（SLACK、SNMP）	○	×
総括レポート作成機能	○	○
Azureに立てたSQL Serverのモニタリング	○	○ ※3
Amazon EC2	○	○ ※3
VMware	○	○ ※3

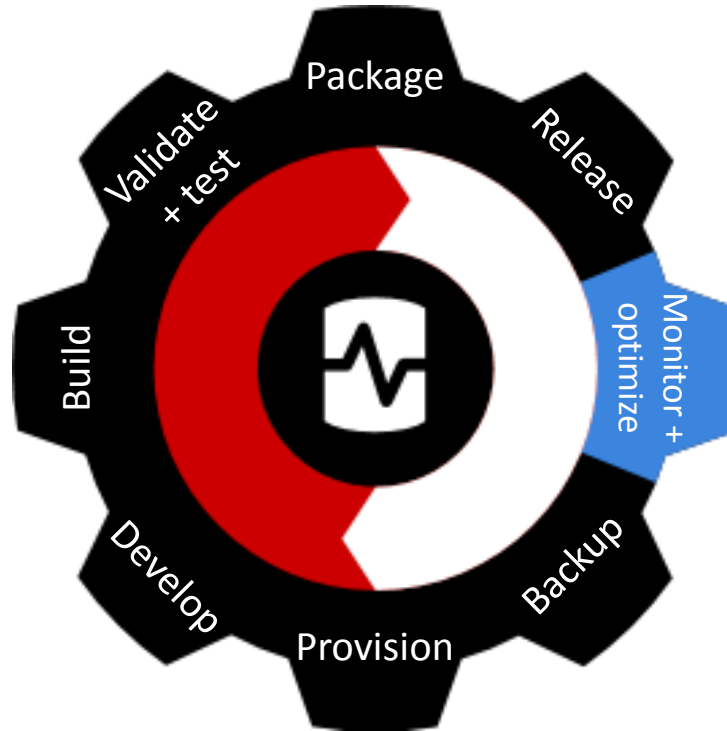
※1 クエリ一覧の表示は可能

※2 Wait一覧の表示は可能

※3 画面上に表示されている統計情報のモニタリングは可能



1日当たりのディスク消費量は、SQL Server 1台につき150～450MB。  
例：10台のSQL Serverを1週間モニターした場合、10GB～30GBを消費。



### **Database DevOps - Monitor & optimize**

Redgate's Database DevOps solution lets you extend your DevOps practices to SQL Server databases so that you can optimize productivity, agility and performance across the full database lifecycle and become a truly high performing IT organization.