

SPAIN MANAGED SERVICES IT MONITORING POLICY

8 November 2019

This Spain Managed Services – IT Monitoring Policy (“**Policy**”) supplements and sets forth additional terms and conditions governing the provision of IT Monitoring service (“**IT Monitoring Service**”), as specified in the applicable Order. This Policy shall form part of the terms and conditions of the Order and the Master Country Agreement or other similar agreement between the Parties (“**Agreement**”).

1. Service Description

1.1 Definitions

Capitalized words used in this Policy will have the meaning ascribed to them herein, but if not defined in this Policy, shall have the meaning ascribed to them in the Agreement.

“**Metrics**” means the measurements obtained from the parameters that Equinix will Monitor as part of the IT Monitoring service. The full list of parameters that Customer may request Equinix to monitor has been outlined in Appendix A to this Policy.

“**Monitor**” is a process whereby the Monitoring Agent will regularly check the status or obtain a value from the applicable parameter on the Monitored Device to create Metrics.

“**Monitoring Agent**” is software installed on the Customer’s Monitored Devices and configured to gather availability and performance Metrics for the Monitored Device it is installed on.

“**Monitored Device**” means a device included as part of the IT Monitoring Service (as outlined below) representing one IP address of an IT configuration item (either physical or logical).

“**Monitoring Platform**” means Equinix’s internal monitoring platform as further described in this Policy.

“**Monitoring Probe**” is a server with monitoring software and configured to gather Metrics from the Monitoring Agents or by obtaining Metrics itself using common monitoring protocols (ICMP, SNMP, HTTP(S)).

“**Remote Probe**” is a Windows or Linux server (typically a virtual machine) in the Customer’s network with monitoring software configured so to provide the recorded Metrics to Equinix’s Monitoring Platform.

“**SNMP**” is the standard network management protocol that stands for Simple Network Management Protocol. Every Monitored Device with SNMP compliance has a “SNMP agent” installed as provided by the supplier of the Monitored Device.

“**SNMP trap**” is an asynchronous event sent by the SNMP agent Monitored Device to a Monitoring Probe using the SNMP protocol.

1.2 Set Up

In setting up IT Monitoring, Equinix will consult with the Customer to ascertain monitoring configuration information, access credentials, as well as contact details for the purposes of providing notifications by email and telephone.

The Customer will: (i) install the Monitoring Agent on Customer’s Equipment; (ii) configure network and storage devices with SNMP protocol; and (iii) where agreed in an Order, Equinix will provide a connection from Customer’s Equipment to the Monitoring Platform.

Equinix will: (i) configure the Monitoring Agent on Customer’s Equipment; (ii) install and configure the Monitoring Probe, if applicable; and (iii) configure Customer’s notifications via email and telephone contact for escalation of detected events.

1.3 IT Monitoring Service

IT Monitoring Service will be provided via the Monitoring Platform and Remote Probe, if applicable, and will include: (i) the collection of Metrics and the creation of events according to Equinix’s standard threshold configuration (details of which can be provided to Customer’s upon request) for the parameters listed in Appendix A; (ii) email notification and optional telephone call for the specified events; (iii) event blackout creation to avoid notifications during the period of maintenance performed on Monitored Devices; and (iv) commissioning and decommissioning from the Monitoring Platform of any new or retired Monitored Devices.

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Equinix will Monitor the Metrics as agreed with the Customer from the parameters listed in Appendix A. The following table outlines the Features that are included and optional as part of the IT Monitoring Service.

FEATURE	DESCRIPTION	INCLUDED / OPTIONAL
Network element Monitoring	Monitoring of network communication and storage devices including SNMP trap reception	Included
Server Monitoring	Monitoring of Windows, Linux, Solaris, HP-UX and AIX servers	Included
Application / Database Monitoring	Monitoring of application and database servers	Included
Transaction Monitoring	Pre-recorded user HTTP(S) transactions monitoring	Optional
Reports	Custom monthly or weekly reports based on the monitored data and sent by email	Optional

The Customer will be able to provide up to three email addresses and an optional telephone number to receive notifications for the detected events on its Monitored Devices. Notifications may be provided between 8am to 5pm during business days in Madrid or 24x7 as agreed by the Parties. If there are two failed telephone calls as part of the aforementioned notifications of which Equinix cannot reach the Customer, Equinix will take no further action.

The Customer will be able to access Tools (as defined in the Managed Services – Support Services Policy) to request modifications to the Monitoring Service including: (i) commissioning and decommissioning of Monitored Devices from the Monitoring Platform; (ii) thresholds for particular parameters being Monitored; and (iii) updating notification details for the email address or telephone numbers used for detected events notifications. The Customer is permitted to modify up to ten percent (10%) of the Monitored Devices per month, and if Customer requests modifications beyond this amount, Customer may incur additional Fees based on a Smarts Hands basis for the time take to implement the modification.

Equinix will store the agreed Metrics on the Monitoring Platform database for a period of ninety (90) days. Equinix will be able to retire a Monitored Device from being Monitored if it has been inaccessible for more than sixty (60) days by the Monitoring Probe.

Equinix will not be responsible of failures on Monitoring Agents due to third party applications running on the Monitored Devices, as well as those derived from actions made by the Customer in Customer systems or networks.

The IT Monitoring service does not include corrective actions for resolution of the detected incident or event on the Monitored Device.

2. Customer Responsibilities

The provision of IT Monitoring is dependent on the following Customer responsibilities and if the Customer fails to perform or fulfil the Customer responsibilities, Equinix will not be obliged to provide IT Monitoring and may charge additional non-recurring Fees that are caused by or arise from such failure to perform or fulfil the Customer responsibilities:

- A. Customer must provide all necessary information to enable Equinix to set up any required connections between Customer's Equipment and the Monitoring Platform and ascertain any other monitoring configuration information.
- B. Customer must provide: (i) systems and network information needed for the monitoring configuration deployment and maintenance; (ii) logical access and credentials for the Monitoring Agent configuration and maintenance; (iii) contact details for the provision of notification emails and telephone calls arising from detected events from Monitoring.
- C. Customer must: (i) ensure Customer's Equipment remains functional and compatible with the original settings agreed during set up, (ii) maintain and not amend Customer's Equipment settings or configuration, or operating system platform or configuration, except with Equinix's prior consultation, and (iii) maintain and not amend the configuration of any relevant Monitoring Agent and Monitoring Probe installed on Customer's Equipment.

3. Charging Methodology

Where a defined term in this Charging Methodology is not defined in this Policy, its meaning shall be as described in the Support Services Policy.

The Unit of Measure (UoM) used to determine the volume consumed or available for consumption of the IT Monitoring Service for the purpose of the different Fees payable by Customer, is the volume of Monitored Devices that is Monitored by the Monitoring Platform.

For these purposes, Overage Charges and Pay As You Go Charges shall be calculated using the peak volume of the UoM during the Service Period.

The Fees for the IT Monitoring Service will accrue from the Effective Date. For the avoidance of doubt, the MRC, Pay-As-You-Go Charges and/or Overage Charges may be invoiced earlier than the Setup Fee where for reasons not attributable to Equinix, some of the Customer's Equipment is not yet ready to be included in Monitoring.

4. Service Level Agreement

The purpose of this Service Level Agreement ("SLA") is to define the measurable performance levels for IT Monitoring and specify remedies available to Customer if Equinix fails to achieve these levels. The service credits listed in the tables below are the sole and exclusive remedy for any failure to meet the service level thresholds stated herein.

Monitoring Platform at 99.5+% availability. This is met by achieving less than two hundred and nineteen (219) minutes of Unavailability of the Monitoring Platform over a calendar month period ("**Monitoring Platform SLA Threshold**"). For the purposes of this paragraph and subject to the last paragraph of this section, the Monitoring Platform is considered "**Unavailable**" when a failure in the Monitoring Platform means that it is unable to receive Monitoring data from Monitored Devices. The period of Unavailability is measured from Customer's notification to Equinix of the incident to the time the Unavailability has been remedied as confirmed by Equinix. Subject to the last paragraph of this section, if Unavailability exceeds the Monitoring Platform SLA Threshold, Customer will be entitled to a credit equal to 1/30th of the IT Monitoring Fees. Further, Customer will be entitled to an additional credit equal to 1/30th of the IT Monitoring Fees for every full hour of Unavailability beyond the Monitoring Platform SLA Threshold.

General. In any calendar month, the maximum credit to which Customer will be entitled will not exceed the Fees payable for the affected IT Monitoring Service in such calendar month. Customer must request a credit within thirty (30) days of the date of its occurrence by contacting the Equinix Service Desk, so Equinix may investigate and isolate the cause of the failure. All periods of Unavailability must be verified by Equinix. Approved credits will be applied by Equinix to the invoice for the month following the month in which the credit was approved. Notwithstanding anything to the contrary, the SLAs will not apply and Equinix will have no liability if the Unavailability: (a) is caused by circumstances beyond Equinix's reasonable control; (b) is caused by Customer's act or omission; (c) is caused by Customer's Equipment, software or connectivity on or between Customer's Equipment and the Monitoring Platform not provided by Equinix; or (d) that occurs during a scheduled maintenance window. Equinix will use reasonable efforts to notify Customer at least fourteen (14) days prior to any regularly scheduled maintenance and as soon as practicable before any emergency maintenance. Equinix will use commercially reasonable efforts to minimize disruption to Customer's Services when performing scheduled maintenance. This SLA shall not apply in situations where more than ten (10) events per day per fifty (50) Monitored Devices are generated due to incidents in the Customer's systems or networks.

5. Miscellaneous

Equinix's customer support for the Services described in this Policy are outlined in the Managed Services – Support Services Policy for Spain – Managed Services available www.equinix.com/resources/product-documents/. This Policy and the Order, together with the Agreement, represents the complete agreement and understanding of the Parties with respect to the subject matter herein and in the Order, and supersedes any other agreement or understanding, written or oral.

APPENDIX A Parameters

1. Annex: Parameters open to monitoring

The object of this annex is to list the parameters that can be monitored by the Managed Service: IT Monitoring. The tables set out the aspects to be monitored and the parameters available.

1.1 Network elements

Network elements are understood as those devices responsible for the administration of traffic within the network. Monitoring requires SNMP v1 or v2 configuration on the devices to be monitored.

1.1.1 Generic network element

PING	Availability (%) Response Time (ms)
SNMP ACCESS	Uptime (days)
NETWORK INTERFACES ⁽¹⁾	Availability (%) Traffic In (b/s) Traffic Out (b/s) Errors In (per sec) Errors Out (per sec)
CPU ⁽²⁾	Usage (%)
MEMORY ⁽²⁾	Usage (%)
TCP PORTS	Availability (%)
URL ⁽³⁾	Availability (%) Response Time (ms)

(1) Subject to access via SNMP queries

(2) CPU and Memory subject to support for HOSTMIB by means of SNMP queries

(3) Specification will be required for each device if desired

1.1.2 Cisco Router/Switch

In addition to the generic parameters, the following can be consulted:

CPU	Total CPU (%)
MEMORY	Memory Usage (%)

1.1.3 HP Procurve Switch

In addition to the generic parameters, the following can be consulted:

CPU	Total CPU (%)
MEMORY	Memory Use (MB)

1.1.4 FortiNet Firewall

In addition to the generic parameters, the following can be consulted:

CPU	CPU Utilization (%)
MEMORY	Memory Usage (%)
SESSIONS	Num of Sessions (#)

1.1.5 StoneGate Firewall

In addition to the generic parameters, the following can be consulted:

CPU	CPU Utilization (%)
SYSTEM	Operative State (#)

1.1.6 Alteon Load Balancer

In addition to the generic parameters, the following can be consulted:

CPU	CPU Utilization (%)
CONNECTIONS	Active Connections (#)

1.1.7 A10 Load Balancer

In addition to the generic parameters, the following can be consulted:

CPU	CPU Utilization (%)
MEMORY	Memory Usage (MB)

1.1.8 F5 BigIP Load Balancer

In addition to the generic parameters, the following can be consulted:

CPU	CPU Utilization (%)
MEMORY	Memory Usage (MB)
SESSIONS	Client sessions (#) Server sessions (#)

1.1.9 Citrix NetScaler

In addition to the generic parameters, the following can be consulted:

CPU	CPU Utilization (%)
MEMORY	Memory Usage (%)

1.2 Storage elements

1.2.1 NetApp

In addition to the generic parameters, the following can be consulted:

SYSTEM	CPU Utilization (%) CIFS Reads (#) CIFS Writes (#) Cache Age (day) Num Of NFS calls (#)
NETAPP FILESYSTEM	FS INodes Percent Used (%) FS Space Percent Used (%) FS Space Used (MB)

1.2.2 Brocade Switch

In addition to the generic parameters, the following can be consulted:

TEMPERATURE	FC Temperature
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1.3 Servers

1.3.1 MS Windows servers

1.3.1.1 Parameters with agent installed

PING	Availability (%) Response Time (ms)
NETWORK INTERFACES	Bytes Total (bytes) Packets sec (Packets) Bytes Received sec (Bytes) Bytes Sent sec (Bytes) Kilo Bytes Received sec (KB/sec) Kilo Bytes Sent sec (KB/sec) Kilo Bytes Total (KB/sec) Packets Outbound Errors (Errors) Packets Received Errors (Errors) Packets Received sec (Packets) Packets Sent sec (Packets)
CPU	Processor Time (%) User Time (%) Idle Time (%) Interrupts (per sec) Privileged Time (%) Reservation (GHz) VM Processor Time (%)
MEMORY	Available Bytes (MB) Memory Used (MB) Memory Usage (%) % Committed Bytes In Use (%) Cache Faults (per sec) Commit Limit (MB) Memory Active (MB) Memory Ballooned (MB) Memory Mapped (MB) Memory Overhead (MB) Memory Shared (MB) Memory Shared Saved (MB) Memory Swapped (MB) Page Faults (per sec) Pages (per sec) Pages Input (per sec)
PAGING FILE	Paging File Usage (%)

LOGICAL DISKS	Busy Disk Time (%) Disk idle time percent (%) Free Space (%) Disk Queue Length (Requests) Disk Space Used (MB) (MB) Free MegaBytes (MB)
PHYSICAL DISKS	Average Disk Sec Per Read (sec/ read) Busy Disk Time (%) Average Disk Sec Per Transfer (sec/transfer) Average Disk Sec Per Write (sec/ write) The rate bytes are transferred to or from the disk (MB/sec)
SYSTEM	Processor Queue Length (Number of Threads In Queue) System Up Time (seconds) Total Processes (Tot Proc) Total Threads (Threads) Server Sessions (Sessions)
SPECIFIC WINDOWS SERVICE	Service Status
SPECIFIC PROCESS	Processor Time (%) User Time (%) Privileged Time (%) Working Set (KB) Private Memory (KB) Virtual Bytes (KB) Handle Count (Handles) Number of processes monitored (Number) Thread Count (Threads)
TCP CONNECTIONS	Connections Active (per sec) Connections Reset (per sec) Max Retransmission Timeout (#) Connections Established (#) Segments Sent (per sec) Connections Passive (per sec) Resets Sent (per sec) Connections Failure (per sec)
MSMQ	Queue Message Count (#)

It is also possible to monitor log files to search for the error chains. Values of customised scripts can also be gathered, and an event generated if the threshold is surpassed.

1.3.1.2 Parameters without agent installed

PING	Availability (%) Response Time (ms)
NETWORK INTERFACES⁽¹⁾	Availability (%) In utilization (%) Out utilization (%)
CPU⁽¹⁾	Usage (%)
MEMORY⁽¹⁾	Physical Memory Used Percent (%) Virtual Memory Used Percent (%)
SYSTEM⁽¹⁾	Number of Connections (#) Number of Processes (#)
LOGICAL DISK⁽¹⁾	Disk Used Percent (%)
WINDOWS SERVICE⁽¹⁾	Status (#)
TCP PORTS	Port monitor status (#)
DNS	Service Status (#) Response Time (ms)
URL	Availability status (#) Content status of the URL (#) Response Time (ms)

(1) Subject to access via SNMP queries

1.3.2 UNIX servers

1.3.2.1 Parameters with agent installed

PING	Availability (%) Response Time (ms)
NETWORK INTERFACES	Total Bytes In and Out (Bytes Per Second) Outgoing Error Percent (%) Percentage Bandwidth Utilization (%) Incoming Error Percent (%) Packets Out (Packets) Incoming Packets (Packets) Percent Network Send Collisions (%)
CPU	% CPU Utilization (%) % CPU Utilization In System Mode (%) Length of Run Queue (Procs) % CPU Idle Time (%) % CPU Utilization In User Mode (%) % CPU Time Waiting For I O (%) CPU Load (#)

MEMORY	% Filesystem Space Used (%) FileSystem Mount Status Number of Free Inodes FileSystem Available Space (KB) FileSystem Used Space (MB) Number of Free Inodes FileSystem Available Space (MB) Filesystem Used Space (KB) Percent Inodes Used (%)
SWAP	% Swap Space Used (%) Free Swap Space System-wide (1K block) Num Of Blocks Free In This Swap Area (1K blocks) Size Of This Swap Area (1K block) % Swap Space Used System-wide (%) Total Swap Space System-wide (1K block)
FILESYSTEM	% Filesystem Space Used (%) FileSystem Mount Status Number of Free Inodes FileSystem Available Space (KB) FileSystem Used Space (MB) Number of Free Inodes FileSystem Available Space (MB) Filesystem Used Space (KB) Percent Inodes Used (%)
TOTAL PROCESSES	Total Num Of Processes On The System (processes) Number of non-root processes (processes) Average Number of Procs per non-root User (processes) Number of Zombie Processes (processes)
SPECIFIC PROCESSES	Memory Usage in KB (KB) Process Count (Process) Virtual Memory (KB) Total Percentage Of CPU Used By Monitored Process (%) Process Count Check (#)
OS SYSTEM UPTIME (SECONDS)	Uptime

USERS	Number of User Sessions (sessions) Num Of Users On The System (users)
KERNEL	% Number Of Message Queues Used System Wide % Number Of Semaphore Sets Used System Wide % Number Of Shared Memory Segments Used System Wide % Number Of Messages Used System Wide % Number Of Semaphores Used System Wide KERINodeUsedPercent
PHYSICAL DISKS	% Of Time Device Was Busy Servicing A Transfer Request Average Num Of Requests In The Queue Num Of Blocks Transferred Per Second Num Of Kbytes Read From Disk Per Second Num Of Read And Write Pages Per Second Num Of Read And Write MB per Second Average Service Time (ms) Num Of Disk Transfers Per Second Num Of Kbytes Written To Disk Per Second
SOLARIS CLUSTER / REDHAT CLUSTER	Cluster RGStatus (#)

It is also possible to monitor log files to search for the error chains. Values of customised scripts can also be gathered, and an event generated if the threshold is surpassed.

1.3.2.2 Parameters without agent installed for Linux

PING	Availability (%) Response Time (ms)
NETWORK INTERFACES⁽¹⁾	Availability (%) In utilization (%) Out utilization (%)

CPU⁽¹⁾	Usage (%)
MEMORY⁽¹⁾	Real Memory Used Percent (%) Resident Memory Used Percent (%) Swap Memory Used Percent (%)
FILESYSTEM⁽¹⁾	Disk Used Percent (%)
SYSTEM⁽¹⁾	Number of Connections (#) Number of Processes (#)
PROCESSES⁽¹⁾	Status (#)
TCP PORTS	Availability (%)
URL	Availability (%) Response Time (ms)

(1) Subject to access via SNMP queries

1.3.3 VMware platform

VMWARE VCENTER⁽¹⁾	Communication Status (0 - Unknown, 1 - Offline, 2 - Online) Displays the view of the VMware vSphere KM (0 = Physical 1 = Logical) Time taken by VSMVimMain
VMWARE HOST⁽¹⁾	Total time elapsed since last system startup ESX Performance Metrics Collection Status Physical Host State
VMWARE NETWORK⁽¹⁾	Percentage of total Network Data Received and Transmitted (%) Status of the NIC (0 - Down; 1 - Up) Total Network Data Received and Transmitted (MBps) Network Data Receive Rate (MBps) Network Data Transmit Rate (MBps) Network Packets Received (Number) Network Packets Received and Transmitted (Number) Network Packets Transmitted (Number) The number of received packets that were dropped (Number) The number of transmitted packets that were dropped (Number)

VMWARE DISK PERFORMANCE⁽¹⁾	Average Disk Throughput (KBps) Total Number of Disk I/O Request (Number) Average Disk Throughput due to Read Operations (KBps) Average Disk Throughput due to Write Operations (KBps) Kernel Disk Command Latency (millisecond) Number of Disk IO Read Request (Number) Number of Disk IO Write Request (Number) Number of SCSI commands aborted (Number) Physical Device Command Latency (millisecond) The sum of Kernel and Device Latency (millisecond)
VMWARE HBA⁽¹⁾	The operational status of the adapter
VMWARE HOST VIRTUAL SWITCH⁽¹⁾	Number of available ports (Count)
VMWARE DATASTORE⁽¹⁾	Datastore disk usage in percent (%) Free Disk Space (MB) IO rate of datastore (KBps) Percentage of oversubscribed space (%) The connectivity status of the datastore Used Disk Space (GB)
VMWARE SCSI DEVICE⁽¹⁾	The Operational state of the LUN

(1) Subject to VCenter access

1.3.4 Databases

1.3.4.1 Oracle

AVAILABILITY	Lock Conflicts (#) Archive Log Free Space (#) Cannot Auto Extend Connect Database Extents Left (#) Extents Left % (%) Free Space Deficit Instance Status Rollback Segment Extents Left (#) Rollback Segment Extents Left % (%) Rollback Segment Space Left (MB) Rollback Segment Space Left % (%) Shutdown In Progress Smallest Free Space % Available (%) Smallest Free Space % Available in Temporary Tablespaces (%) Smallest Free Space Available in Temporary Tablespaces (MB) System Tablespace Space Left (MB) System Tablespace Space Left % (%)
CAPACITY	Cursors Left (#) Free Enqueue Resources (#) Processes Left (#) Alert Log Size (MB) Background Dump Space Left (MB) Background Dump Space Used (MB) Background Dump Used Space % (%) Core Dump Space Left (MB) Core Dump Space Used (MB) Core Dump Space Used % (%) Cursors Used (%) Enqueue Resources in Use (%) LicenseLimit (%) Processes Used (%) Sessions Left (#) Sessions Used (%) Transactions Left (#) Transactions Used (%) User Dump Space Left (MB) User Dump Space Used (MB) User Dump Used % (%)

TABLESPACES	Free Space Available (MB) Space Allocated (%) Space Left (%) Used Space (MB) Logical Block Reads (per sec) Logical Blocks Written (per sec) Physical Reads (per sec) Physical Writes (per sec) Total Space Available (MB)
PERFORMANCE	Average Disk Sorts (per sec) EnqTimeouts (#) Average Lock Acquired Wait Time (sec) Average Minutes Between Checkpoints (min) Average Row Sorts per All Sorts (#) Background Checkpoint (per hour) Block Changes (per sec) Block Gets (per sec) Calls (per sec) Consistent Changes per Consistent Gets (%) Current Transactions (#) Data Manipulation Locks (%) Database Writer Average Buffers Scanned (#) Database Writer Average Scan Depth (#) Database Writer Buffers Scanned (#) Database Writer Checkpoints (#) Database Writer Cross Instance Writes (#) Database Writer Free Buffers Found (#) Database Writer LRU Scans (#) Database Writer Make Free Requests (#) Database Writer Reusable Buffers (#) Database Writer Summed Scan Depth (#) Database Writer Timeouts (#) Disk Sorts (%) Enqueue Conversions (#) Enqueue Deadlocks (#) Enqueue Releases (#) Enqueue Requests (#) Enqueue Waits (#) Lock Requests that Wait (%) Response Execution Time (sec) Response Sql Execution Time (sec) Rollback Header Waits to Gets Ratio (%) Rollback Segment Entry Waits (per sec) Rollback Transaction Ratio (%) Statement Execution (per sec) Transactions (per hour) User Calls (per sec)

SGA	Buffer Hit Ratio (%) Data Dictionary Cache Hit Ratio (%) Buffer Waits to Block Gets Ratio (%) Dictionary Cache Misses (#) Dictionary Cache Requests (#) Dictionary Cache Slots Available (#) Dictionary Cache Slots Used (#) Dictionary Cache Total Slots (#) Free Buffer Waits to Free Buffer Requests Ratio (%) Latch Get Ratio (%) Library Cache Get Hits (#) Library Cache Get Requests (#) Library Cache Hit Ratio (%) Library Cache Invalidations (#) Library Cache Pin Hits (#) Library Cache Pin Requests (#) Library Cache Reloads (#) Lock Pinned Library Cache Entries Ratio (%) Rollback Buffer Busy (%)
JOBS	Broken Jobs (#) Failed Jobs (#) Overdue Jobs (#)
USERS	Problem Users (#) Distinct Users Currently Connected (#) Total User Sessions (#) Users Currently Active (#)
SESSIONS	ORA_TIME_LOCK (days) ORA_ENQ (#)
BLOCKAGES	Locked time (min)
EXPORT	Status (#)
DATAFILES	Datafiles Offline (#)
BACKUP RMAN	Last failure time (days)
ASM	Disk used (%) Disk offline (#)

Applicable to supported Oracle Database versions. Specific monitoring of Oracle is supplemented with monitors based on system parameters, and access to listener ports or process status.

1.3.4.2 MySQL

AVAILABILITY	Connection Status (#)
CONNECTIONS	Connections (#)
TABLE LOCKS	Table locks immediate (#) Table locks waited (#)
INNO DB	Requests (#) Reads (#)
KEY READS	Key read requests (#) Key reads (#)
CACHE	QCache Hits (#)

Applicable to supported MySQL Database versions. Specific monitoring of MySQL is supplemented with monitors based on system parameters, and access to ports or process status.

1.3.4.3 Postgresql

AVAILABILITY	Instance availability (#) Database availability (#)
DATABASE	Database cache usage (%) Maximum transaction age (sec) Number of connections (#) Number of delete (#) Number of elements that acquire locks (#) Number of elements waiting to get a lock (#) Number of inserts (#) Number of transaction (#) Number of transaction per second (#) Number of update (#)

Applicable to supported PostgreSQL Database versions. Specific monitoring of MySQL is supplemented with monitors based on system parameters, and access to ports or process status.

1.3.4.4 MS SQL

GENERAL STATISTICS	Logins/sec Logouts/sec User Connections
AGENT	SQL Agent Service Status (#)
ACCESS METHODS	Forwarded Records/sec FreeSpace ..etches/sec Full Scans/sec Index Searches/sec Page Splits/sec Scan Point..ations/sec Workfiles Created/sec Worktables Created/sec
BUFFER MANAGER	Buffer cache hit ratio Checkpoint pages/sec Free pages Lazy writes/sec Page life expectancy Page lookups/sec Page reads/sec Page writes/sec Target pages Total pages
MEMORY MANAGER	Lock Blocks Memory Grants Pending Target Ser..emory (KB) Total Serv..emory (KB)
SQL STATISTICS	Auto-Param.tempts/sec Batch Requests/sec SQL Compilations/sec SQL Re-Com..ations/sec

Applicable to supported MSSQL Database versions. Specific monitoring of MS SQL is supplemented with monitors based on system parameters, and access to ports or Windows service status.

1.3.5 Web and applications servers

1.3.5.1 IIS

WEB SERVICE	Anonymous Users/sec Bytes Received/sec Bytes Sent/sec Current Anonymous Users Current Connections
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1.3.5.2 Tomcat

MEMORY	Heap Memory (%) Non Heap Memory (%) Code Cache Memory (%) Eden Space Memory (%) Old Gen Memory (%) Perm Gen Memory (%) Survivor Space Memory (%)
THREADS	AJP Threads (#) AJP ThreadsBusy (%) HTTP Threads (#) HTTP ThreadsBusy (%)

Applicable to supported Tomcat Server versions. Specific monitoring of Tomcat is supplemented with monitors based on system parameters, and access to ports, URLs or process status.