

# Cloud-based Application Performance Management & Automation Cloud Solution

Automate

Orchestrate

Monitor

Manage

IT-Conductor White Paper

Monitor, Manage, and Orchestrate Enterprise IT through Intelligent Automation

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# Table of Contents

1	INT	RODUCTION	
2	MA	NAGEMENT AS A SERVICE	
	2.1 2.1.2 2.1.2 2.1.4 2.1.4 2.1.4 2.1.6 2.1.6 2.1.7 2.1.8 2.1.9	<ul> <li>SAP NW (Java)</li> <li>SAP Business Objects (BI) &amp; SAP BODS (SAP Data Services)</li> <li>SAP HANA</li> <li>SAP ASE (formerly Sybase)</li> <li>Oracle</li> <li>SAP HostAgent</li> <li>Linux</li> </ul>	
3	AVA	AILABILITY MONITORING	
4	PER	RFORMANCE INTELLIGENCE	
5	SER	RVICE PERFORMANCE MANAGEMENT	
	5.1 5.2	Multi-dimensional Workload and Transaction Analysis Dynamic Service Level Management	
6	ALE	ERTS MANAGEMENT	
7	PRO	DCESS AUTOMATION	
	7.1 7.2 7.3	Self-healing Automated Recovery IT Operations Workflow Automation Synthetic Transaction Management	
8	REF	PORTING	
9	SAP	P DATA SERVICES MONITORING	
	9.1 9.2	SAP DATA SERVICES HEALTH Alerts Management and Reporting	
10	APP	PLICATION PERFORMANCE MANAGEMENT FOR MICROSOFT SQL SERVER	
	10.1 10.2 10.3	Monitoring Performance Automation	
11	TEA	AM-BASED CENTRAL SAP DOWNLOAD MANAGER	
	11.1 11.2	IT-Conductor managed SAP Download Manager Standard IT-Conductor Manageability	
12	IT-C	CONDUCTOR BUSINESS VALUE	
	12.1	POWERFUL BUT SIMPLE TO USE	
13	SUN	MMARY	
	13.1	UNIFIED MONITORING	



### 1 Introduction

Investment in IT infrastructure without the inclusion of monitoring is incomplete, like running systems and databases without data protection and backup. Global businesses realize the importance of protecting their investment in mission-critical applications and infrastructure through the monitoring and maintenance of complex IT system landscapes.

The rapidly evolving computing landscape has led to a surge in infrastructure as a service (IaaS) using private and public clouds. For many companies, the need to modernize their core computing platform is key to enabling the next wave of business innovations, done at agile speed to stay competitive. These new digital infrastructure initiatives often necessitate application upgrades, migrations, and new implementations, which in turn also require new management tools appropriate for an agile cloud-based environment. Business investments in IT come with expectations for IT to deliver high-quality services. Application Performance Management (APM) are tools and processes which allow the automation of monitoring and related service management, to provide effective and continuous insight into application health. Minimizing the noise will, in turn, maximize the performance of these applications.

An effective APM platform needs to relate the many business processes, software, and infrastructure layers, and continuously process large volumes and velocity of metric and event data. Then efficiently use the resulting information to support critical management of application availability and performance, with the ultimate goal of closing the loop between observability and self-healing automation to minimize disruptions to business operations.

The lengthy and cumbersome process of setting up monitoring applications is excessively time-consuming and detrimental to business operations, thus there is a need for APM solutions with sophistication and less complication. Application monitoring using silos of tools creates a lack of integration and cohesion among the functional areas of a business, as well as deducting from the value derivable from consolidated data.

The complexity of setting up, configuring, and customizing of new monitored business systems using the applications in the market today diminishes your ROI due to added cost in time, effort, and resources. Such challenges pose a significant threat to business operations and the reliability of the digital infrastructure platform.

Operating in a reactive mode is often a result of an ineffective monitoring solution which will invariably keep your IT team a step behind fatal system events. The goal of this whitepaper is to clearly provide an overview of a patented APM solution called IT-Conductor, which is the next-generation cloud-based monitoring and application performance management platform. So much more than an APM, IT-Conductor is an APM-as-a-service that extends beyond a platform and offers a remote managed service, allowing customers anywhere in the world to benefit from both automatic monitoring templates to customized management requirements, including IT operations workflow orchestration, delivered at cloud speed and real-time customer service.



IT-Conductor's Mission is to Monitor, Manage, and Orchestrate Enterprise IT through Intelligent Automation.

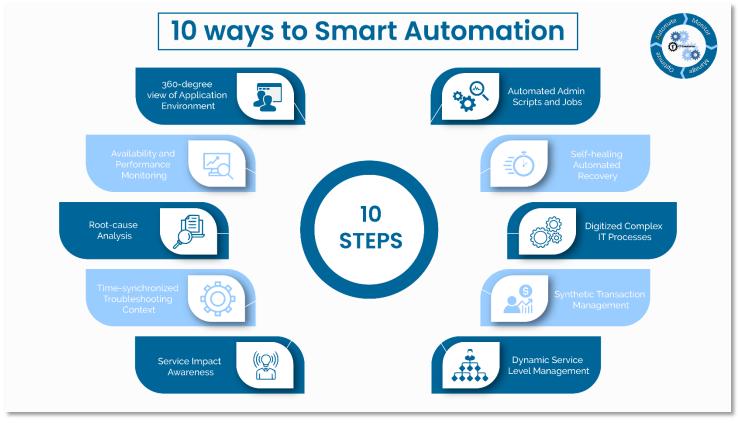


Figure 1: 10-ways to Automate towards Smart Application Management

# 2 Management as a Service

Application monitoring that includes the full stack of applications, databases, and systems is often costly, hard to set up, and time-consuming requiring dedicated infrastructure and skilled resources to install, configure, customize and maintain.

IT-Conductor is a cloud-based service without the need to install any monitoring infrastructure, except for a locally installed Gateway. IT-Conductor APM is delivered as a full-service model – including monitoring configuration and performance analysis. The hosted service offering minimizes deployment and ongoing maintenance, allowing full spectrum availability and performance management in a matter of hours even for a very large and complex environment. The deployment of a small IT-Conductor Gateway (proxy-agent) securely within your network, combined with best-practice application templates, enables automated and effective application monitoring and management much more efficiently.

Each customer (tenant) can have multiple gateways for scalability, multi-location setup such as on-prem and public cloud, network segmentation such as production and non-production, and resilience (primary and failover configuration handled automatically by IT-Conductor).



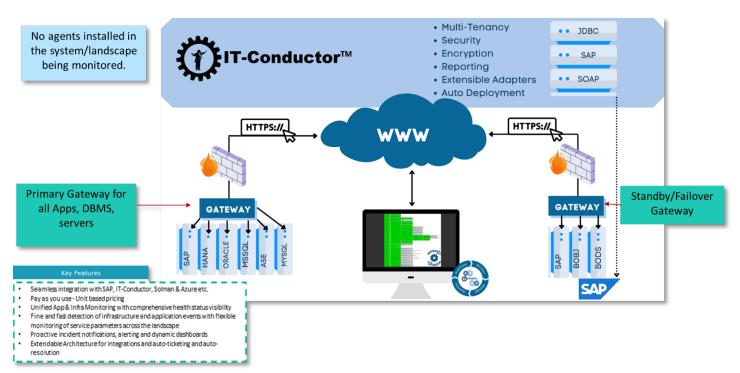


Figure 2: IT-Conductor Patented Agentless Platform High-level Architecture

#### 2.1 Complete SAP Ecosystem Monitoring

IT-Conductor seamlessly manages the whole SAP technology stack – from Front-End Services down to Cloud/Virtualization infrastructure: SAP NW (ABAP & Java), BusinessObjects, Hadoop, DBMS (HANA, Oracle, ASE, MaxDB, DB2), SAP Host Agent, Linux, VMWare, Azure, AWS

In-depth Application Management for major SAP Ecosystem Components: IT-Conductor is not a superficial tool - it is an in-depth end-to-end management platform - it goes as deep as customers need for any of the ecosystem elements.

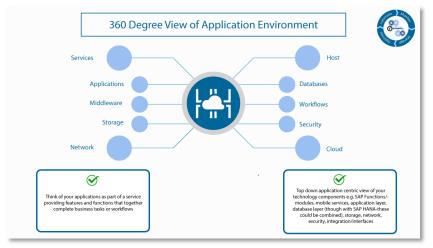


Figure 3: 360-degree View of Application Environment



#### 2.1.1 SAP NW (ABAP)

- CCMS Alerts analysis (R3syslogs, dumps, etc.)
- CCMS Performance and Status Attributes
- RFC Destination Availability & Latency
- qRFCs and aRFCs
- IDocs
- Enqueue / SAP Locks
- Spool Monitoring
- Workload Analysis
- Background Job Monitoring
- BW Process Chains
- Business Communications
- SLT
- LDAP
- Transports (STMS)
- SAP Concur integration
- STRUST Certificates
- Fiori Gateway Statistics



Figure 4: SAP Netweaver ABAP Monitoring



#### 2.1.2 SAP NW (Java)

- J2EE Stack Monitoring
- Background Jobs
- Logs
- Certificates
- PO/PI/XI Monitoring
- Components Availability
- Messages
- Queues
- Caches
- Business Process Management (BPM) Services
- Java Scheduler

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Figure 5: SAP NW JAVA Monitoring

#### 2.1.3 SAP Business Objects (BI) & SAP BODS (SAP Data Services)

- Alerts
- Availability
- Service Performance & Availability
- Probes
- Jobs
- SAP Data Services (Job performance and status)

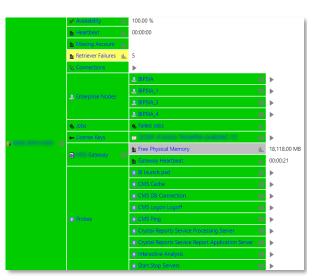


Figure 6: BOBJ Monitoring



#### 2.1.4 SAP HANA

- Alerts
- Availability: Scaleout (HA, DR)
- Service Performance & Availability
  - Services
  - Volumes
  - $\circ$  Threads
  - Savepoints
  - SQL Statements
- HANA System Replication (HSR)
- Integrated liveCache
- Jobs
- Backups (including scheduling)
- Cluster
- Daily KPI reporting
- Mini-check reporting

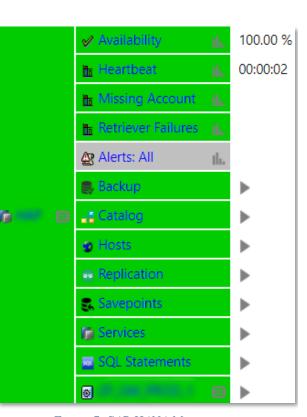


Figure 7: SAP HANA Monitoring

#### 2.1.5 SAP ASE (formerly Sybase)

- Alerts
- Availability
- Engine Performance
- Storage
- Backups



Figure 8: SAP ASE Monitoring



#### 2.1.6 Oracle

- Alerts: Database and Listener
- Availability
- Schema
- Buffers
- Backups (BRBACKUP)
- SQL Statements



Figure 9: Oracle Database Monitoring

#### 2.1.7 SAP HostAgent

- ICM
- Processes
- WebDispatcher (including backend services)
- Logs
- Enqueue/Lock Statistics
- Stop/Start operations automation

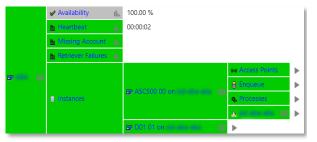


Figure 10: SAP HostAgent Monitoring

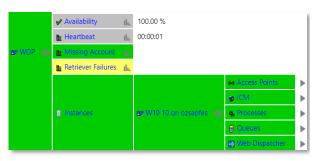
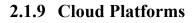


Figure 11: SAP Web Dispatcher Monitoring



#### 2.1.8 Linux

- Availability
- CPU, Memory, IO
- Filesystems and storage reporting
- Processes
- Printers
- Syslogs
- Jobs
- Pacemaker Cluster
- Top <n> automated snapshots
- Kernel limits and utilization
- BRBACKUP logs for Oracle servers



- AWS Monitoring (VPC, Subnets, Gateways, EC2, EBS, S3) and provisioning
- Azure Monitoring (Subscription, Resource Groups, VMs, Managed disks) and provisioning
- VMware ESXi hosts and guest VMs

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🚡 Retriever Failures	di.		
🌉 BR Backups	ıh.		
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🖿 CPU Idle	ıh.	96 %	
🚹 CPU User	ıĥ.	1 %	
Load Average	ıh.	3.17	
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Memory Used	ıh.	97.47 %	
🚡 Swap Used	ıh.	0.07 %	
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top	⊟		
🗃 File Systems		•	
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Figure 12: Linux/Unix Monitoring

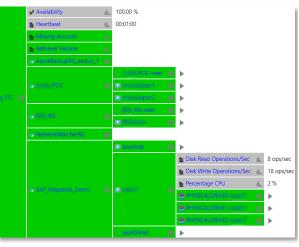


Figure 13: Azure Cloud Monitoring

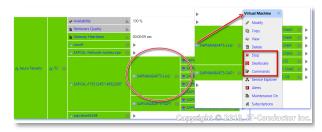


Figure 14: Azure Cloud Automation





Figure 15: AWS Cloud Monitoring

### 3 Availability Monitoring

Availability is the most important and fundamental requirement for monitoring, yet availability information alone is not useful without a service context as well as the relationship to service level objectives (SLO). SLO defines what availability should be (what percentage over time) and how it should be measured (sampling interval and calculation window). Availability of services can be very different from component availability.

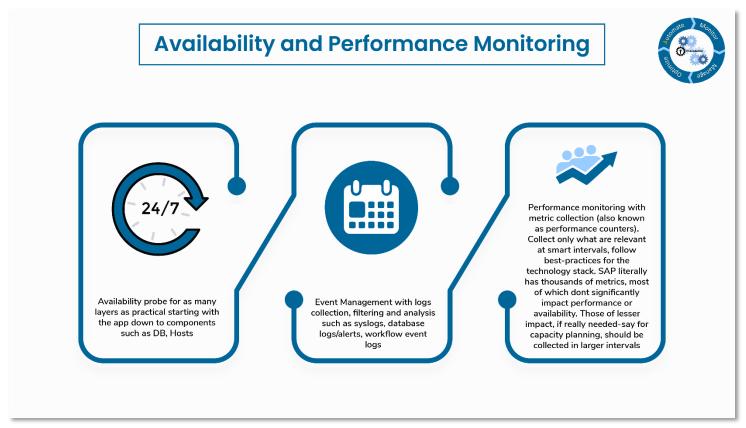


Figure 16: Availability and Performance Management



For example, an SAP application such as ERP maybe have uninterrupted availability for end-users, yet one or more of its system components such as application servers, message server, enqueue server, and database servers can be down at any given time. If the architecture is deployed with the appropriate high-availability (HA) configuration, then the service may be 100% available while the redundant components can be less than 100%. With proper service monitoring, these can be properly distinguished and managed accordingly.

IT-Conductor can monitor the Availability of User-defined Services as well as supporting infrastructure components that make up the service with a flexible configuration.



Figure 17: Multi-component Availability

### 4 Performance Intelligence

The ability to monitor and analyze what happened yesterday, last week or last month about the same time frame/reference is one challenge deserving attention. This required synchronized data series. IT-Conductor monitors the Performance of services, applications, and IT infrastructure via pre-defined and/or a custom set of



KPIs, in time dimensions which allow not only active service level management, but also back-in-time troubleshooting with correlation, comparisons, and historical snapshots.



Figure 18: Auto-compare of Metric and Timeframes

# 5 Service Performance Management

Service Level Reports are static and after-the-fact which are of little use for troubleshooting and proactive management. IT-Conductor bridges this gap by offering a highly flexible service definition with dependencies such as servers and resource utilization which affect a service. IT-Conductor enhances service performance management in the following areas:

- End-user experience services can track specific sets of key performance indicators for a custom set of metrics, such as user, transactions, locations, dialog vs HTTP, etc.
- Service discovery of application-aware components and relationships
- Composite services assembled from other services and monitors
- Easily configure target availability, response times, and notification if the goals are not met.
- Drill down into services to discover the root-cause.



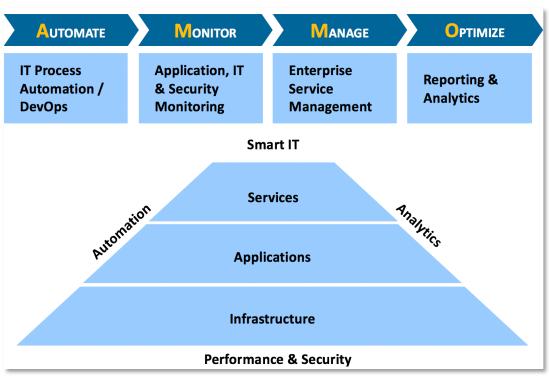


Figure 19: Service Performance Management

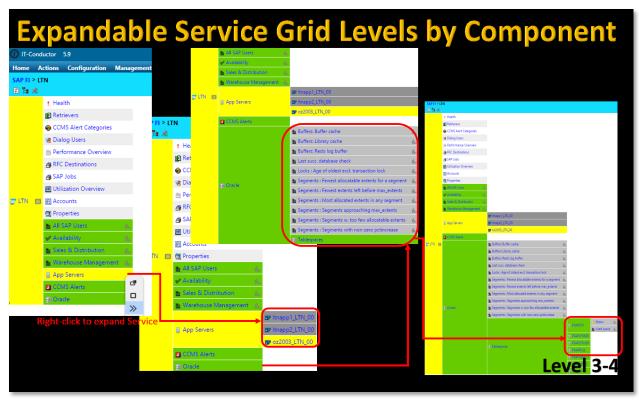


Figure 20: Dynamic and Expandable Service Grid



#### 5.1 Multi-dimensional Workload and Transaction Analysis

IT-Conductor can view performance in an intelligent manner, cross-referencing and changing analytical dimensions on whatever views may be of interest to the performance analyst or within the context of time-synchronized service data to allow point-in-time and trend analysis across many technical components and application instruments.

The example below shows the relationship between the service and its KPI "service response time", which comprises of one or more transaction response times. The transaction response times themselves can be further analyzed with components such as DB response times, network time, CPU time, etc. The focus can switch from service performance down to individual sub-components then sort and compare, all within a few clicks.

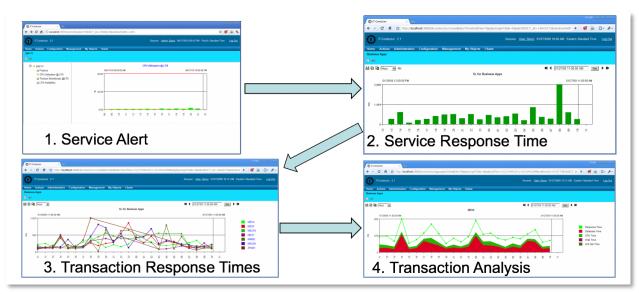


Figure 21: Workload and Transaction Analysis

This approach combines the Availability monitoring of applications and infrastructure components, together with performance KPIs, events from source system alerts, and threshold exceptions.

- Service disruptions trigger alerts and notifications can lead directly to the point of time when the Availability was detected, further allowing the drill down to locate potential root causes of incidents and events.
- IT-Conductor uses advanced troubleshooting context which automatically time synchronizes various service health components in order to assist in the root-cause determination.
- IT-Conductor templates simplify the correlation between complex application components and how they relate as well as impact overall performance and availability.
- This method has proven effective in reducing analysis time and which in turn enhances the overall IT service quality.

#### 5.2 Dynamic Service Level Management

IT-Conductor offers integrated SLM on top of the application and system monitoring:



- Dashboards support operational service level monitoring and compliance.
- Service Level Agreement & Operational Level Agreement proactively managed for compliance
- Automated and flexible report generation and delivery
- Service desk integration with notifications to ITSM platforms that support web services API, and charts built into email notifications which can be further drilled down.

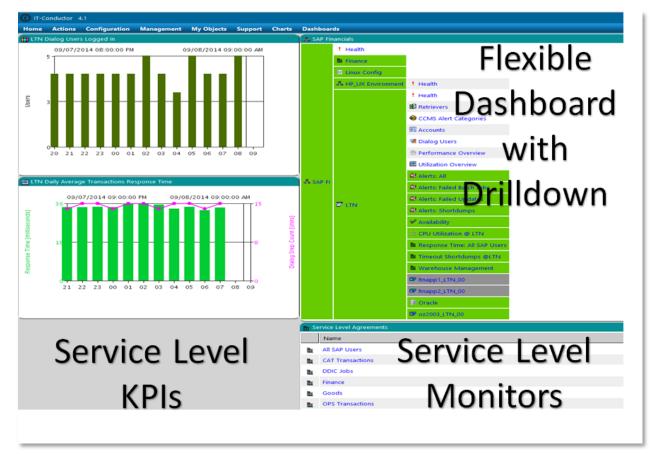


Figure 22: Service Management Dashboards

# 6 Alerts Management

Most monitoring solutions treat alerts as raw events without much context or relationship.



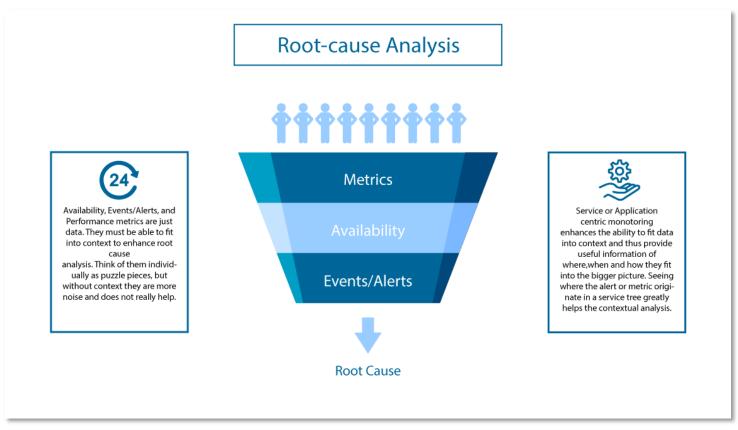


Figure 23: Root-cause Analysis

IT-Conductor manages alerts more effectively by using policy-based exceptions where alerts can be filtered, timesynchronized and automatically recovered, including targeted notification to the right analyst reducing mean time to repair (MTTR).

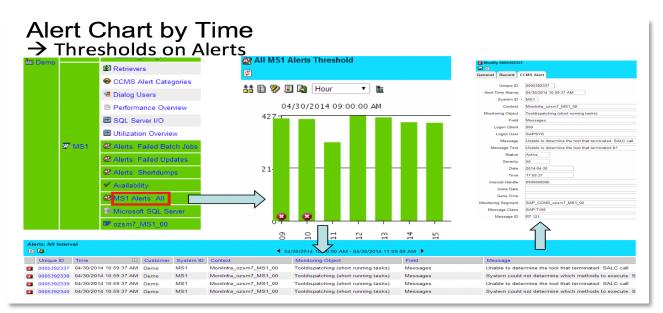


Figure 24: Smart Alert Management



# 7 Process Automation

Monitoring alone often lacks proactiveness while automation solutions are often expensive, separate unintegrated products.

IT-Conductor utilizes a massively parallel processing engine to coordinate complex IT processes across open platforms and applications. SAP Job scheduling and monitoring is an example of this capability, which can extend to full IT Process Automation of Runbooks.

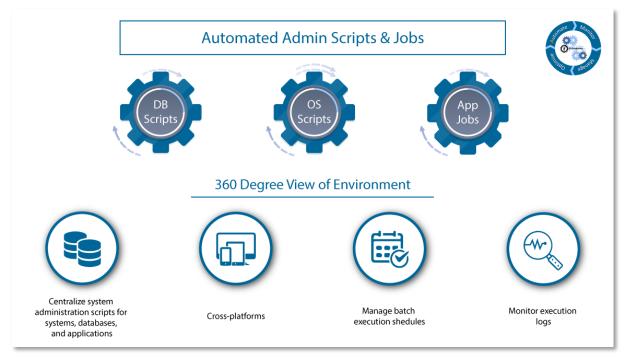


Figure 25: Automated Admin Scripts, Jobs and Processes

#### 7.1 Self-healing Automated Recovery

IT-Conductor performs policy-based recovery/remediation actions. It leverages automation which can attempt recovery action upon an alert occurrence that a monitoring policy has been violated.

An automated action is initiated to proactively prevent a service disruption as well as auto-closing the alert, if applicable with a smart alert management rule. For example, an alert can auto-close if, after a set time, the condition which originally raised the alert no longer exists and the status has returned to normal.

Monitored thresholds can invoke auto-recovery actions using known fixes for common issues, or simply notify the person responsible to execute those actions.



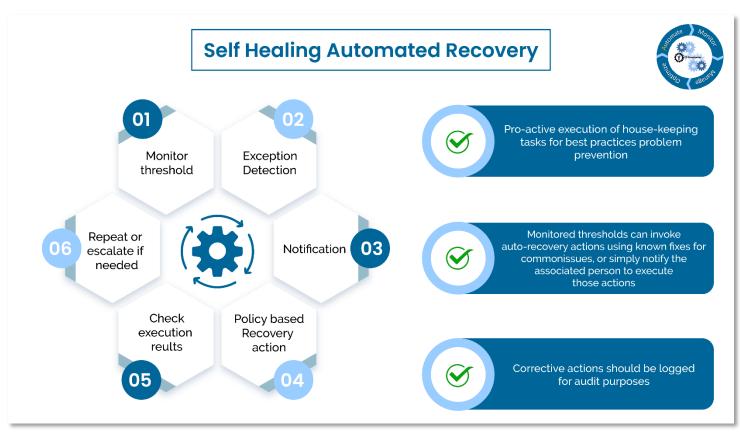


Figure 26: Self-healing Automated Recovery

The recovery action is highly customizable such as specific application commands, databases, or shell scripts that can be adapted to each customer and application's need.

Common usage scenarios include:

- DB archive log backup when the archive filesystem reaches the set threshold.
- Restarting printer queue when the monitored printer status goes offline.
- Restart SAP qRFC queues when queues are stuck, or errors occur.

The example below demonstrates how an Oracle filesystem is monitored and when it reaches a warning threshold of 95% full, triggers an alert as well as a recovery process to run an SAP BRARCHIVE log backup to save and delete offline archive files. Ultimately, space and recovery RTO/RPO are managed with frequent on-demand log backups.



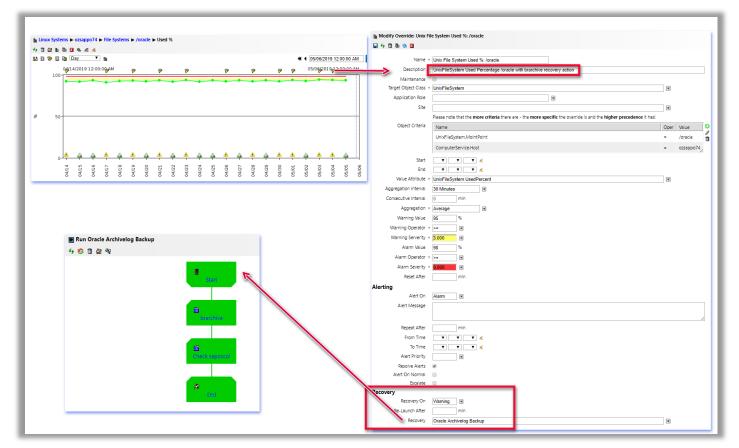


Figure 27: Automation of Oracle ARCHIVELOG backup as part of Filesystem monitoring

#### 7.2 **IT Operations Workflow Automation**

IT-Conductor incorporates a built-in scheduler and Process Composer that can orchestrate application native activities such as SAP jobs, database SQL and stored procedures, Linux/UNIX shell commands and scripts, as well web-services APIs, etc. IT-Conductor digitizes both simple and complex IT processes with these goals:

- Capture of core IT processes which should be recorded in runbooks for documentation or automation
- Complex environments are non-linear so workflows are best used to capture processes and dependencies
- Workflows should be repeatable, monitored, and managed down to the individual task level



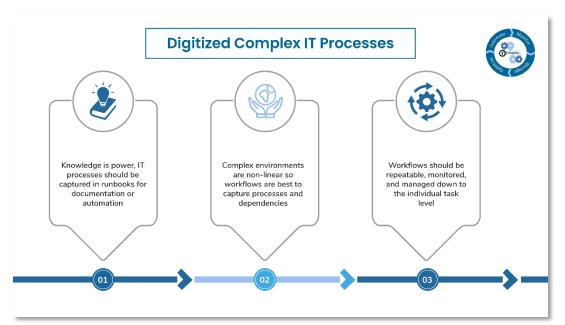


Figure 28: Digitized Complex IT Processes

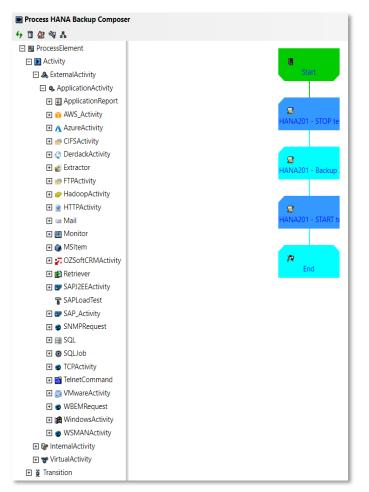


Figure 29: IT Operations Process Composer



Common usage scenarios include:

- Centralized scripts, replacing local schedulers like crontab
- Housekeeping jobs in SAP, databases and OS
- System refresh Post-copy Automation (PCA) when used in conjunction with IT-Conductor SID-Refresh™
- Mass operations such as system startup and shutdown

#### 7.3 Synthetic Transaction Management

IT-Conductor can improve the application availability and performance monitoring by integrating test transactions and reports in a coordinated manner across the application landscape.

- Test critical processes on a frequent basis to ensure the availability and performance service levels for them are constantly monitored.
- When possible, simulate end-user experience from various points of entry to the service or application using robots or scripts that can be triggered centrally but executed remotely.
- Baseline performance during different time periods got trend analysis and exception-based alerting.
- Transaction-level monitoring
- Integration with Performance Load Testing

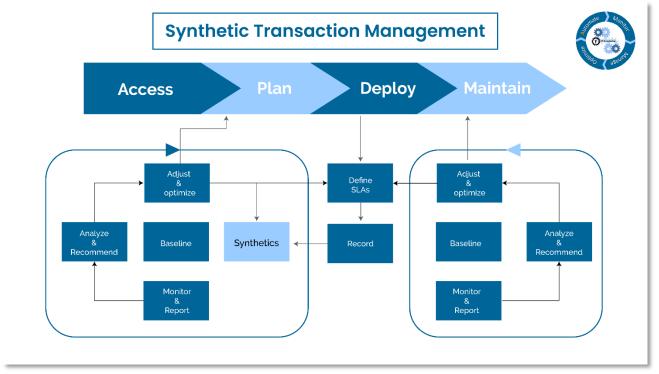


Figure 30: Synthetic Transaction Management

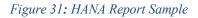


# 8 Reporting

IT-Conductor data can be reported in several ways:

- On-demand reports of charts and tables, in multiple time intervals and period, which can be delivered as HTML or PDF
- CSV export of any metric or service hierarchy with flexible time intervals and period
- Scheduled reports based on XML definitions for the services or KPI
- Reports of pre-defined applications such as HANA SQL or SAP mini-check, which can be delivered to a DBA's inbox

HANA_Memory_Overview Execution Log			
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icense memory limit	214748364		
Physical memory (available)	157	157 (ozs81hana)	
Physical memory (used)	106	106 (ozs81hana)	
Global allocation limit	148	148 (ozs81hana)	
HANA instance memory (allocated)	117	117 (ozs81hana)	
HANA instance memory (peak used)	90	90 (ozs81hana)	
HANA instance memory (used)	73	73 (ozs81hana)	
HANA shared memory	4	4 (ozs81hana)	
	60	60 (ozs81hana)	13 (Pool/ColumnStore/Main/Dictionary/RoDict)
(And heap memory (used)	00	00 (0230 mana)	8 (Pool/ColumnStore/System)
heap memory (used)			8 (Pool/PersistenceManager/UnifiedTableContainer)
			4 (Pool/ColumnStore/Main/Index/Single)
			3 (Pool/Persistence/Manager/PersistentSpace/DefaultLPA/Pag
			2 (Pool/ColumnStore/Delta)
			2 (Pool/ColumnStore/Main/Uncompressed)
			2 (Pool/PersistenceManager/LOBContainerDirectory)
			1 (Pool/ColumnStore/Main/Compressed/Indirect)
			1 (Pool/PersistenceManager/VarSizeEntryFreeSpaceInformati
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		Lo (oldo mano)	2 (REPOSRC)
			1 (DOKTL)
			1 (D010INC)
			1 (SMIMCONT1)
			1 (DD03L)
			1 (O2PAGCON)
			1 (ACTIVE_OBJECT)
Row store size	4	2 (ozs81hana)	1 (CS_COLUMNS_)
Disk size	84	84 (global)	25 (REPOLOAD)
55K 512C	04	or (global)	9 (REPOSRC)
			6 (/SMB/CONT_REF)
			3 (DDNTF)
			2 (ECTD_XML_STR)
			2 (D010TAB)
			2 (FPLAYOUTT)
			1 (DYNPLOAD)
			1 (ACTIVE_OBJECT)
			1 (OBJECT_HISTORY)



# 9 SAP Data Services Monitoring

**SAP Data Services** (aka BusinessObjects Data Services) offers its users the possibility of cleansing, transforming, and integrating data from various data sources to deliver better-quality data. With IT-Conductor, monitoring of SAP Data Services is simple and fast, and can serve as your one-stop solution platform to replace multiple tools for the monitoring and management of BODS.

Manual monitoring of BODS performance errors is ineffective and prone to mistakes; so are the repeated daily efforts required for systems maintenance and avoidance of system outages.



IT-Conductor addresses the challenge of end-to-end management of SAP Data Services with all its data sources, targets, and high volume of jobs. As a result, access to up-to-date data and reports, finding the root cause of problems, and avoiding inaccurate data are possible.

In a large SAP environment where there is a need to monitor and manage several BODS, IT-Conductor eliminates the admin overhead of managing each of these systems manually e.g., logging into each system to enable services, checking failed jobs, or broken connections. This information is displayed in IT-Conductor in a single pane with options for alerts and notifications should there be a loss of connection vital to the data flow of SAP Data Services.

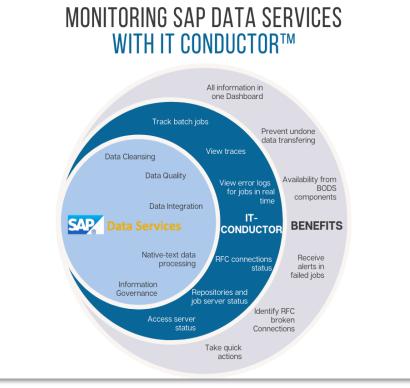


Figure 32: SAP Data Services Monitoring

#### 9.1 SAP Data Services Health

Using IT-Conductor to keep your applications in a healthy state involves:

- Monitoring the Availability of Business Object Data Services and its components.
- Tracking Data Services jobs, traces and error logs for failed dataflows.
- Monitoring the status of both real-time RFC connections and RFC Servers, and detecting broken remote connections.
- Monitoring the status of Job Server and Repositories and receiving notifications about failed jobs.
- Tracking incomplete data transfer or any data corruption that may lead to data problems in the destination system.
- End-to-end monitoring of dependent applications/components S/4HANA, SAP SLT, Cloud endpoints etc.



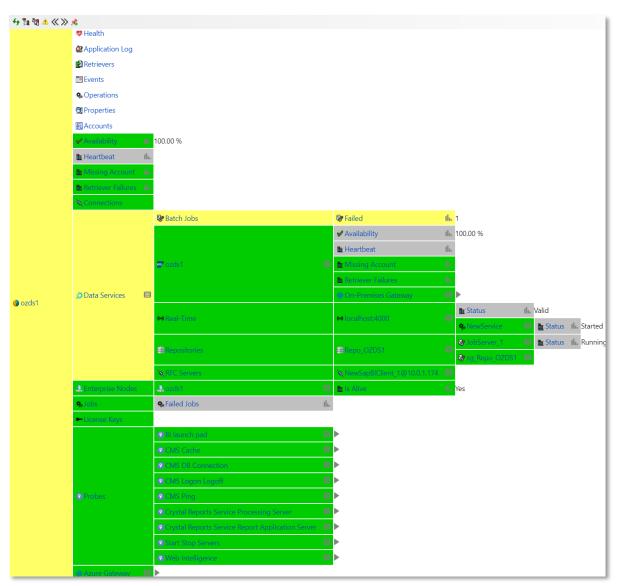


Figure 33: SAP Data Services Grid

#### 9.2 Alerts Management and Reporting

- Daily KPI reports of the health of your system can be scheduled and sent to your e-mail in HTML/PDF format.
- Configure alerts as per customer requirements to detect when there is a problem that needs immediate attention.
- With smart filtering, you will only receive needed alerts, in order for SAP administrators to focus more on proactive and productive tasks.



# 10 Application Performance Management for Microsoft SQL Server

IT-Conductor has always provided standalone monitoring for databases like HANA, Oracle, and MaxDB; while other databases are monitored via SAP CCMS. We recently included the MSSQL Server database to the list of databases that are fully monitored as a standalone database system in IT-Conductor. This, of course, comes with many benefits and possibilities.

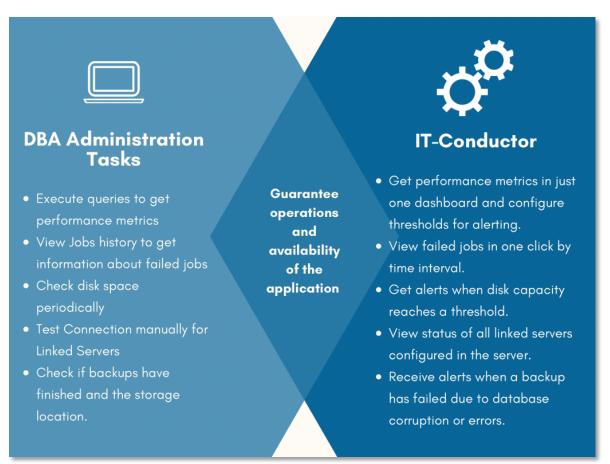


Figure 34: IT-Conductor Approach to MSSQL Monitoring

Identifying bottlenecks in database I/O operations can prove difficult without the right tools. This type of problem, among many other database-related challenges, is what IT-Conductor can help overcome. With the proactive approach to monitoring that IT-Conductor offers, you can reduce unplanned outages/downtimes and confidently meet your SLA requirements.

#### 10.1 Monitoring

- Monitor backups and failed jobs.
- Delivery of SLA reports for Capacity planning
- Historic and daily performance counters for trend analysis
- Alerts and notifications defined as per requirement
- Support for on-premises and cloud-based monitoring of MSSQL Server database



- Built-in performance intelligence using best practice templates and cloud agility
- Remotely discover trends in database performance and define customizable thresholds and alerts to notify you of potential system issues.



Figure 35: MSSQL Performance Monitoring

#### **10.2 Performance**

IT-Conductor collects information regarding active transactions, locks, checkpoints, user connections, timeouts, free memory, buffer cache hit ratio, and other top expensive queries visible in IT-Conductor Dashboards that allow the tracking of current system activities.

#### **10.3 Automation**

- Automate repeated tasks and improve database performance.
- Run queries from a central platform and turn existing SQL scripts into automated jobs.
- Reduce maintenance windows through continuous automation of life-cycle management.



# 11 Team-based Central SAP Download Manager

SAP Download Manager integration is the latest offering from IT-Conductor aimed at improving the efficiencies of IT organizations.

SAP Download Manager plays a critical role in SAP Service delivery and support, acting as a conduit of software media from SAP to the customer IT environment. It overcomes many of the limitations of the traditional SAP download manager such as duplication of files, lack of automation, and central management of downloads.

#### 11.1 IT-Conductor managed SAP Download Manager

IT-Conductor delivers a managed, multitenant SAP Download Manager with the following offerings:

- Server Based: Just add items to your SAP download basket and IT-Conductor will download them to a central location.
- **Deduplicated**: Individual basket items are downloaded only once, if other users already requested them and they were downloaded, no need to do it again.
- **Central Repository**: IT-Conductor stores the downloads centrally and optionally copies them to a chosen network location.
- Analytics: IT-Conductor can report various statistics about the download media including the number and size of downloads per user, per type, etc.
- **Storage Monitoring**: IT-Conductor monitors the use of storage for the downloads and supports alerting when its usage exceeds the thresholds.
- **Housekeeping**: IT-Conductor will automatically delete the download from the staging area if a central repository copy is configured.
- License Compliant: All downloads and storage are performed from customer on-premises Gateway, on behalf of specific users using the S-User credentials they have supplied in full compliance with SAP Licensing.

#### **11.2 Standard IT-Conductor Manageability**

SAP Download Manager monitoring is available in the IT-Conductor service grid with the visibility of multiple users' baskets, the store size, and the store free space.

IT-Conductor<sup>™</sup>

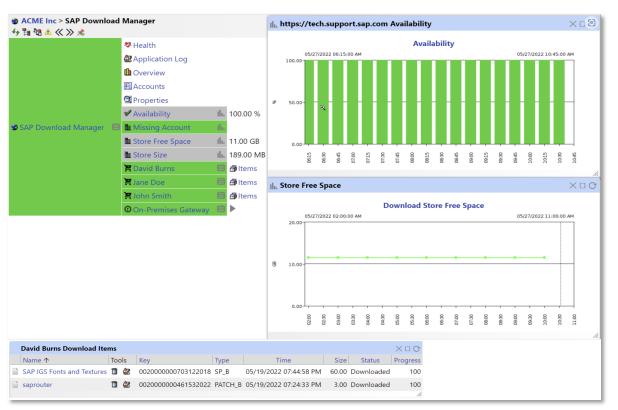


Figure 36: SAP Download Manager Grid

SAP Download Manager is a managed application by IT-Conductor, and all standard manageability features apply, including SAP download **URL availability monitoring**, alerting, and notifications. It provides visibility into individual user download activities and details from each download.

Also, an overview of the top 10 downloads by size is shown in the dashboard as well as the storage usage which makes capacity planning easier. A customizable dashboard tailored to customer needs, service status, and statistics can be found in one place.

Benefit from the cost savings on storage area, network bandwidth, and lifecycle management. Your enterprise team can save time and effort by using a common repository for deployment activities. You can also leverage the IT-Conductor Scheduler for unattended download of files to a location of your choosing and at a set time deemed suitable for downloads without impacting network capacity. Take advantage of the option of setting a removal age to delete old files after a defined period.



Oownloads by Person (Month)		Top 10 Downloads by Size							C-
		Name	Tools	Кеу	Туре	Time	Size $\downarrow$	Status	Progress
John Smith 7 Jane Doe 4 David Burns 2		SP351 for SAP ANALYTICS CLOUD KIT 1.0	î 🏽	002000000521112022	SP_B	05/11/2022 05:50:34 PM	348.00	Downloaded	100
		SP349 for SAP ANALYTICS CLOUD KIT 1.0	î 🏼	002000000451892022	SP_B	05/11/2022 05:54:29 PM	348.00	Downloaded	100
		SP347 for SAP ANALYTICS CLOUD KIT 1.0	î 🏽	002000000365572022	SP_B	05/11/2022 06:01:33 PM	348.00	Downloaded	100
		SAP Analytics Cloud Agent 1.0.349	1 🖉	002000000451882022	SP_B	05/11/2022 09:25:19 PM	77.00	Downloaded	100
		SAP IGS Fonts and Textures	î 🏾	002000000703122018	SP_B	05/19/2022 07:44:58 PM	60.00	Downloaded	100
		SP 00 PL 0 for SAP BP S4H ANA V16.2002	î 🏾 🏖	002000000297752020	SP_B	05/18/2022 01:36:02 AM	28.00	Downloaded	100
		SAPCRYPTOLIBP	î 🏾	002000000457502022	PATCH_B	05/18/2022 01:46:17 AM	6.00	Downloaded	100
Storage Usage	C-	SAPCRYPTOLIBP	î 🏾 🏖	002000000356512022	PATCH_B	05/18/2022 01:46:17 AM	6.00	Downloaded	100
05/27/2022 06:00:00 AM 05/27/2022 11:00:00 AM		SAPCRYPTOLIBP	î 🏾	002000000130172022	PATCH_B	05/18/2022 01:46:17 AM	6.00	Downloaded	100
		saprouter	î 🏾	002000000461532022	PATCH_B	05/19/2022 07:24:33 PM	3.00	Downloaded	100
至 100.00									
0.00									

Figure 37: SAP Download Manager Dashboard

# 12 IT-Conductor Business Value

IT-Conductor provides an integrated scalable cloud platform, there are features and benefits to meet the needs of many IT roles and teams:

- Performance intelligence for the SAP ecosystem realized through power, speed, and ease of cloud access
- Improves IT support staff responsiveness and therefore end-user experience
- Flexible definition of scenarios, end-user monitoring, trend analysis, and dynamic reporting
- Hosted offer minimizes deployment and ongoing maintenance costs
- No long-term cost commitments

#### **12.1 Powerful but Simple to Use**

- Most tools require extensive training to configure and utilize the tool, others require almost dedicated resources.
- IT-Conductor is easy to learn and simple to use, yet powerful thus allowing technical staff to spend more time with other tasks. It assists the user in the analysis and troubleshooting of an issue. It provides a good overview and relationships of all the components of their systems.
- IT-Conductor's dynamic dashboard gives an important overview and information on the SAP systems.
- IT-Conductor's health overview provides all alerts from your SAP, DBMS, OS, and infrastructure.

**∭**IT-Conductor<sup>™</sup>

	MONITOR	MANAGE AU		OPTIMIZE	
Role	Application Service Management	IT Service Level Management	IT Process Automation	Test & Performance Management	Reporting & Analytics
CIO		<ul> <li>IT to Business Service Mapping (BSM)</li> </ul>			Compliance Reporting on IT KPI, Quality of Service
Business Service Manager		• Service-Centric Availability & Performance Management			<ul> <li>Service Grid &amp; Dashboards</li> <li>KPI reporting</li> </ul>
IT Manager	Application-Centric Availability & Performance Management	<ul> <li>Set goals (thresholds) for Operational &amp; Service Level Agreement</li> </ul>	<ul> <li>Scheduled Report Delivery</li> </ul>	<ul> <li>Performance Baseline &amp; Benchmark</li> <li>Capacity Planning</li> <li>Load-testing</li> </ul>	<ul> <li>Single Pane of Glass - uniform management across Technology Silos</li> <li>Service Impact Analysis</li> </ul>
Service Desk Analyst	<ul> <li>Policy-based Notification</li> </ul>	<ul> <li>Proactive Service performance degradation/outage notification</li> <li>Service Impact Visibility</li> <li>Support SLA/OLA Monitoring</li> </ul>			<ul> <li>Trend Analysis</li> <li>Support KPI Reporting</li> </ul>
IT Operator	<ul> <li>Hierarchical Subsription-based Notification</li> </ul>	<ul> <li>Hierarchical Subsription-based Notification</li> </ul>	<ul> <li>Automated Maintenance (backup etc)</li> </ul>	Go-Live     Validation	Incident     Reporting
IT Administrator	<ul> <li>360 degrees view of Application Environment</li> <li>Root-Cause Analysis</li> </ul>	<ul> <li>Service Impact Awareness</li> <li>Root-Cause Analysis</li> </ul>	<ul> <li>Self-healing: Automated Recovery</li> <li>Manage Scripts, Batch Admin Jobs</li> <li>Digitize Complex IT Processes</li> </ul>	<ul> <li>Performance Monitoring</li> <li>Synthetic Transaction</li> <li>Performance Optimization</li> </ul>	<ul> <li>Time- synchronized Troubleshooting Context</li> <li>Logs Analysis</li> </ul>

Figure 38: IT-Conductor Value Proposition



### 13 Summary

**IT-Conductor** SaaS platform remotely orchestrates complex IT operations. When applied to the automation of Application Performance Management, enterprise customers have realized savings up to 90% of the time and cost, while gaining a valuable global Remote Trusted Advisor.

**IT-Conductor** delivers low-overhead, non-invasive solutions that increase visibility into system performance, improve data gathering, and provide targeted analysis and troubleshooting for SAP systems so that your IT team can become more proactive and responsive which will enable them to have a direct, positive impact on business operations.

**IT-Conductor** allows you to run reports automatically on a pre-defined schedule and email them to key team members as well as IT management.

To mitigate the great risk of costly system outages, a proven solution and in current use at enterprises of all sizes, IT-Conductor is needed to ensure system uptime and optimum system-wide performance. This simplifies the management of large-scale SAP landscapes.

**IT-Conductor** offers granular level monitoring of the applications in your landscape enabling you to implement highly sophisticated Performance and Service Level Management, complete with true policy-driven automation/remediation, reporting, and integration with the rest of your operational landscape.

**IT-Conductor** allows for highly sophisticated interactive charting, drill-downs, and contextual presentation while providing high scalability with the use of modest resources.

**IT-Conductor** provides an easy-to-use, web-based interface for mining and reporting on the historical SAP performance and availability data.

#### **13.1 Unified Monitoring**

System monitoring is beyond just event notification and IT-Conductor offers a holistic approach to application performance management that encompasses the components within an IT system landscape. The services provided by IT-Conductor are highly customizable and increasingly adaptive. With a vibrant R&D team that continuously work on the improvement and addition of useful business functions, the adoption of IT-Conductor is guaranteed to yield the desired business results and ROI.

- Included in standard SAP ABAP/JAVA/HANA/ASE monitors, IT-Conductor can and does monitor OS metrics included by SAP.
- Additionally, IT-Conductor provides an efficient agentless way of monitoring operating system resources like the CPU, Memory utilization, Disk utilization, Paging-in and Paging-out, Physical memory, Allocated memory on Linux/UNIX.
- With IT-Conductor, you have the option of setting the required threshold values to alert you when there is either a warning or an alarm incident.



- A visual display of the current OS status, as well as a chronological display of the events that have occurred, can be reported using IT-Conductor.
- IT-Conductor provides you with a data chart depicting a correlation of the individual components of the operating system in such an intuitive form as to enable you to view at a glance the bottlenecks in your system, in relation to dependent applications and database.
- IT-Conductor can monitor printer queues managed by the host lpd facility.
- Syslog monitor for error messages is supported.
- Storage utilization by filesystem is readily reported for capacity monitoring.
- IT-Conductor's Linux/UNIX monitoring includes the ability to automate SSH jobs, either on-demand or scheduled, in essence replacing the need for local management of cron jobs. Some examples include the ability to kick off database archive log backups to free FS space, or schedule backups via OS scripts, even taking SAPOSCOL snapshots of system configuration or stats. It also automates the monitoring of critical OS processes by name or name patterns.



# Table of Figures

Figure 1: 10-ways to Automate towards Smart Application Management	
Figure 2: IT-Conductor High-level Architecture	
Figure 3: 360-degree view of Application Environment	5
Figure 4: SAP Netweaver ABAP Monitoring	6
Figure 5: SAP NW JAVA Monitoring	7
Figure 6: BOBJ Monitoring	7
Figure 7: SAP HANA Monitoring	8
Figure 8: SAP ASE Monitoring	
Figure 9: Oracle database monitoring	9
Figure 10: SAP HostAgent Monitoring	9
Figure 11: SAP Webdispatcher Monitoring	9
Figure 12: Linux/Unix Monitoring	10
Figure 13: Azure Cloud Monitoring	10
Figure 14: Azure Cloud Automation	10
Figure 15: AWS Cloud Monitoring	11
Figure 16: Availability and Performance Management	11
Figure 17: Multi-component Availability	12
Figure 18: Auto-compare of metric and timeframes	
Figure 19: Service Performance Management	
Figure 20: Dynamic and Expandable Service Grid	14
Figure 21: Workload and Transaction Analysis	
Figure 22: Service Management Dashboards	16
Figure 23: Root-cause Analysis	17
Figure 24: Smart Alert Management	17
Figure 25: Automated Admin Scripts, Jobs and Processes	18
Figure 26: Self-healing Automated Recovery	19
Figure 27: Automation of Oracle ARCHIVELOG backup as part of Filesystem monitoring	20
Figure 28: Digitized Complex IT Processes	21
Figure 29: IT Operations Process Composer	21
Figure 30: Synthetic Transaction Management	22
Figure 31: HANA Report Sample	23
Figure 32: SAP Data Services Monitoring	24
Figure 33: SAP Data Services Grid	25
Figure 34: IT-CONDUCTOR Approach to MSSQL Monitoring	
Figure 35: MSSQL Performance Monitoring	27
Figure 36: SAP Download Manager Grid	29
Figure 37: SAP Download Manager Dashboard	
Figure 38: IT-Conductor Value Proposition	31



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