



ORACLE  
MANAGEMENT PACK

# WHITE PAPER

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*"Lamborghini: high performance manufacturer uses high performance software."*

Automobili Lamborghini S.p.A. uses Microsoft System Center and the OpsLogix Oracle Management Pack to streamline the monitoring of their Oracle environment within Operations Manager.

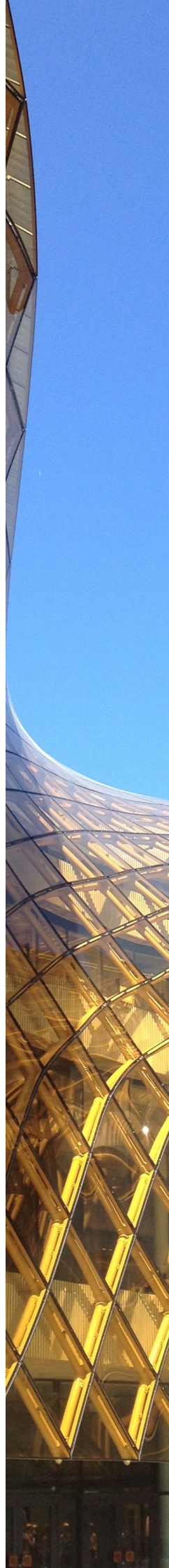
*"Proactive monitoring of your Oracle environment"*

Databases are essential to any organization in everything from general company logistics, applications, client records and transactions. Oracle provides versatile, robust and concurrent databases for a variety of end users. The OpsLogix Oracle Management Pack seamlessly integrates the managing and monitoring of your Oracle environment within a System Center Operations Manager™ console.



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# INTRODUCTION

The Oracle Corporation has been a consistent world leader in databases since its inception in 1977. The Oracle database (commonly referred to as Oracle RDBMS or simply as Oracle®) is an object-relational database management system (ORDBMS) produced and marketed by Oracle Corporation. The Oracle DBMS can store and execute stored procedures and functions within itself in the form of Tablespaces and physically in the form of data files.

The ability to maintain service health is crucial for any business or industry reliant on its IT infrastructure. Through timely alerts, components can be replaced or updated before they adversely affect commercial business operations. System Center Operations Manager enables IT enterprises to reduce the costs of data center management in any server operating infrastructure. System Center Operations Manager fundamental principle provides a clear easy-to-use interface for complete end-to-end monitoring. It is capable of monitoring thousands of servers, applications, clients and monitors the delivery of a comprehensive view of an IT environment's health.

The OpsLogix Oracle Management pack further enhances the features of System Center Operations Manager by not only allowing administrators a clear and concise overview of their Oracle environment, but by also allowing administrators to spot potential issues through the use of timely alerts and monitors.



Microsoft®

System Center

**ORACLE®**

# OPSLOGIX ORACLE® USER GROUP

This white paper is written for policy makers, IT managers and IT administrators who work for any enterprising company with an IT infrastructure. A prerequisite is that the companies use both Oracle databases (version 10g, 11g and 12c) and System Center Operations Manager.

- System Center Operations Manager 2012 & 2016
- Oracle version 10g, 11g and 12c
- OpsLogix Management Pack for Oracle

## OPSLOGIX ORACLE® MP

The OpsLogix Oracle Management Pack allows Oracle administrators to monitor their Oracle® environment through a System Center Operations Manager console. This effectively means that although one still has the option of using Oracle Enterprise Manager, it is no longer essential to have an additional warning system in place. The Management Pack is compatible with Oracle version 10g, 11g and 12c on Windows, UNIX and Linux. The current version also provides monitoring capability for various RAC components.



## OPSLOGIX ORACLE® MP LEGAL COMPLIANCE AND SECURITY

All OpsLogix products are developed with the same standard security policies that are dictated to Microsoft and are in compliance with (USA) Federal Cyber Security policy. Additionally, OpsLogix products make use of FIPS (Federal Information Processing Standard) compliant encryption in all of its Management Packs.

# SOLUTION: OPSLOGIX ORACLE® MP

The OpsLogix Oracle Management Pack contains best practice knowledge to discover, monitor, troubleshoot, report on, and help resolve problems for Oracle components. OpsLogix best practice knowledge comes from our development partners who have successfully implemented and currently use our Oracle Management Pack in a variety of enterprises, ranging from a gas infrastructure company to a national bank.



## FUNCTIONAL SOLUTION

This solution is aimed toward streamlining the monitoring of any IT environment containing Oracle components. It provides administrators a central overview of all IT components in their environment, including all Oracle components, within the System Center Operations Manager console. This increases user efficiency by further centralizing clear monitoring data through an available platform. This feature adds to IT security, because there is no need to further extend the network and does not require engaging external partners. The OpsLogix Oracle Management Pack effectively becomes part of your own IT ecosystem.

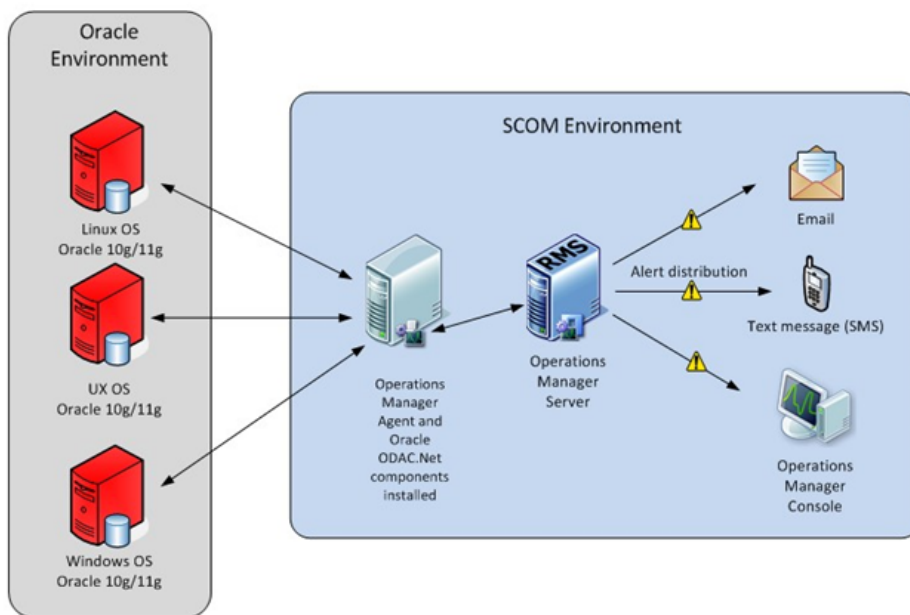
The foundations of Microsoft System Center Operations Manager were laid over a decade ago and in 2007, System Center Operations Manager, became a reality in the IT sector. Since then, IT jargon such as “SCOM” and “Ops Mgr” have become synonymous to the IT utility of Microsoft System Center management.

With its powerful and versatile monitoring options, Microsoft System Center Operations Manager has become an industry favorite across the globe.

Due to the interactivity and therefore, high degree of personal enterprise customization, Operations Manager is capable of monitoring an infinite variation of IT systems and platforms. Operations Manager enables users to view a list of alerts. An administrator role is needed to install agents, configure monitored computers, grant user rights and create management packs.

The OpsLogix Oracle Management Pack has been designed from the working perspective of an Oracle administrator and directly contributes to optimizing the resources infrastructure engineers and specialists have to spend in maintaining overall IT system health and stability.

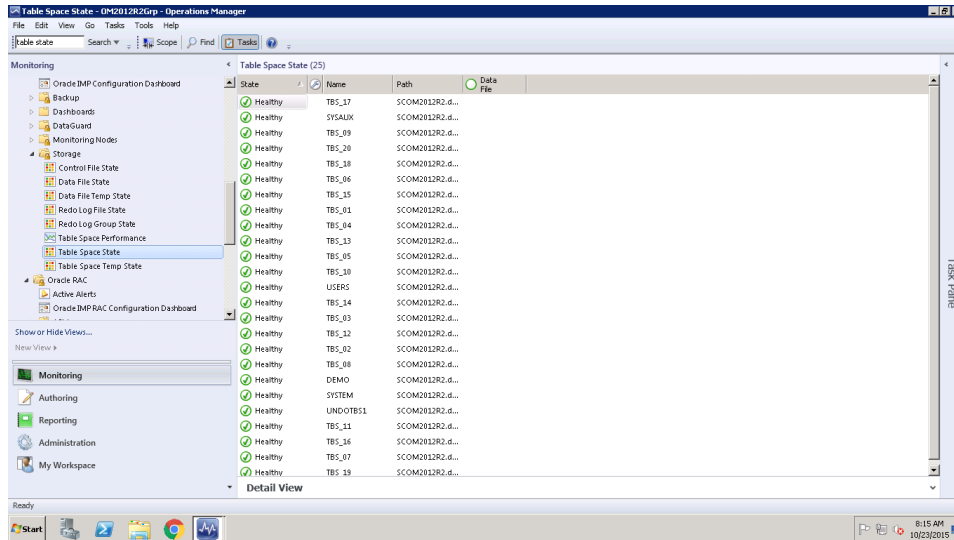
Administrators and designers working with System Center Operations Manager will be familiar with System Center Operations Manager applications and systems and will not be burdened with the additional new interfaces. They will be presented with concise data on a known interface in the customizable order they are used to. The OpsLogix Management Pack for Oracle makes use of a Full Class Model for collecting State and Alert information. Both State and Alert information are collected and presented through the same model within the Operations Manager Console so administrators are instantly able to view the health of their Oracle environment.



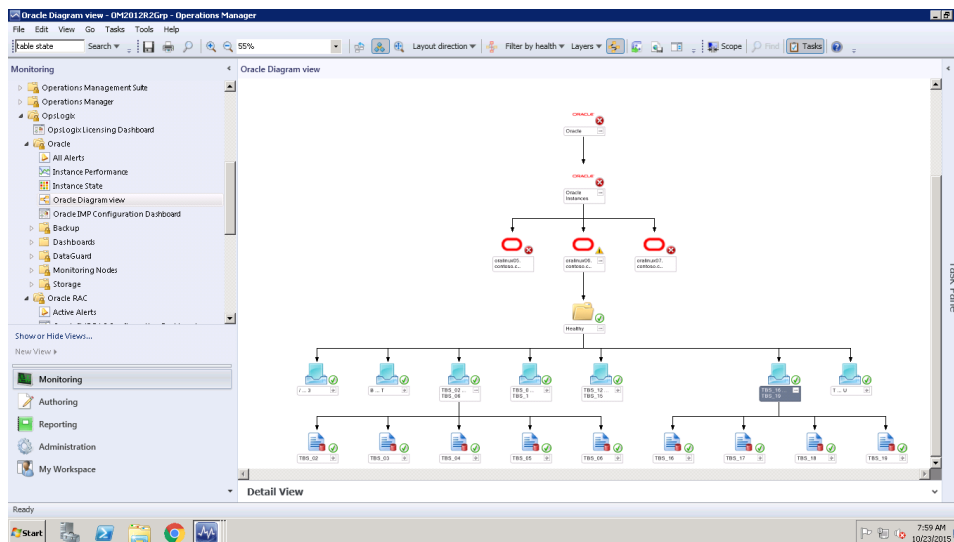


# TECHNICAL SOLUTION

The Oracle RDBMS™ (Relational Database Management System) stores data logically in the form of tablespaces and physically in the form of data files. The OpsLogix Oracle Management Pack monitors the tablespace health and performance.



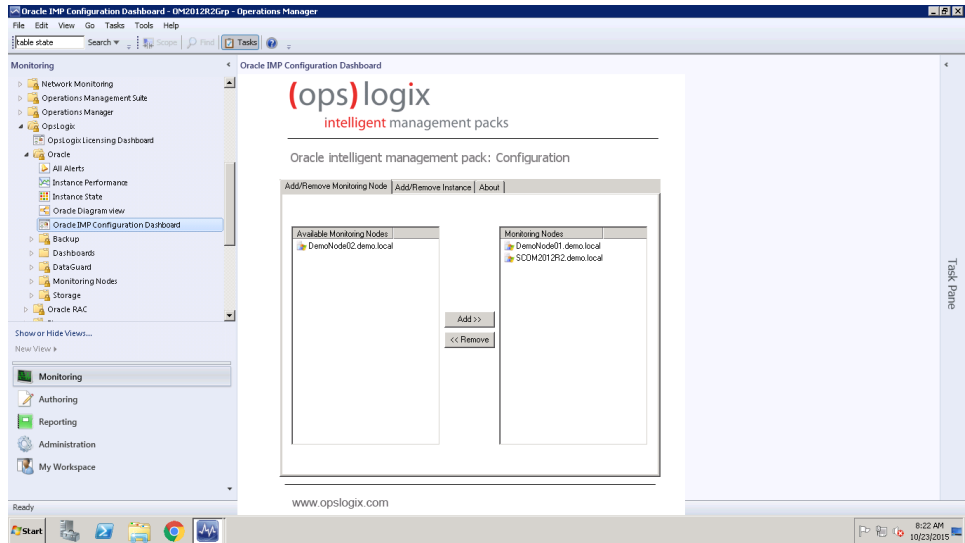
The pack contains complete State diagram views of the Oracle environment. This enables a clear immediate overview of what is being monitored.



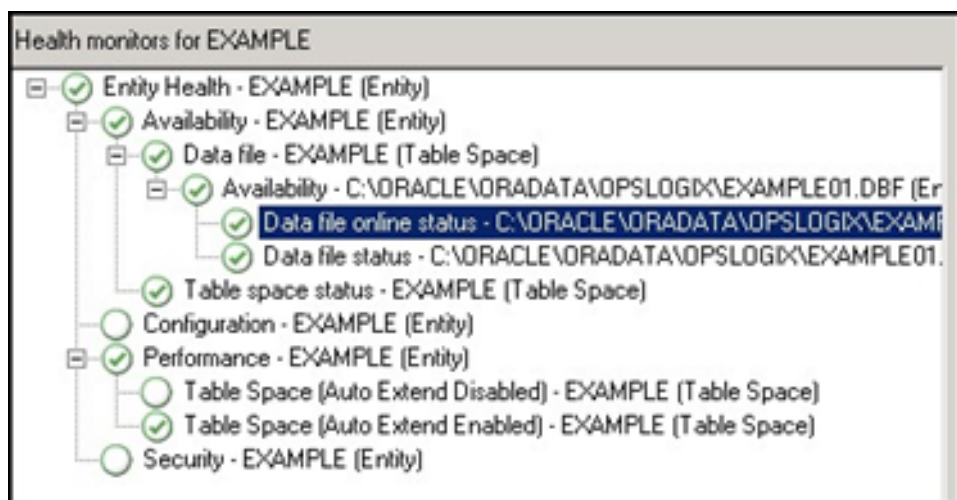
The configuration of the Management Pack is clear and straightforward. Administrators are presented with a list of monitoring nodes and are able to add or remove varying instances according to their own specifications.



# ORACLE MANAGEMENT PACK



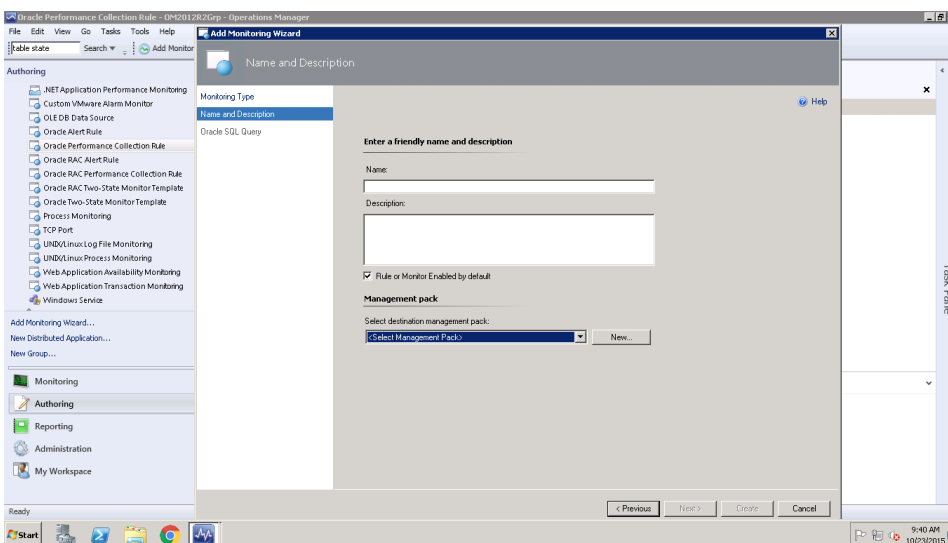
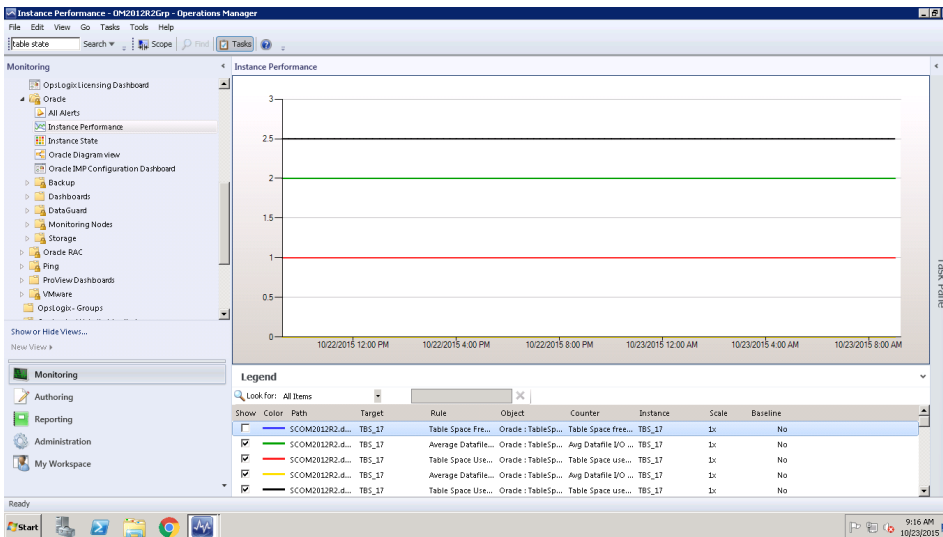
The Oracle Management Pack contains precise thorough knowledge articles of its rules and monitors thereby assisting administrators with specific information and potential resolutions when troubleshooting.



Oracle database management tracks its computer data storage with the help of information stored in the System Tables. The System Tables contains the data dictionary—and often (by default) indexes and clusters.

A data dictionary consists of a special collection of tables that contain information about all user-objects in the database. Since version 8i, the Oracle RDBMS also supports "locally managed" Tablespaces which can store space management information in bitmaps in their own headers rather than in the System Tables, as can happen with the default "dictionary-managed" Tablespaces. Version 10g and later 11g, subsequently introduced the SYSAUX Tablespace which contains some of the tables formerly located in the System Tablespace.

Instance performance components are collectively displayed in graphs allowing general performance analysis or specific comparative analysis.



Different business sectors may want to prioritize using different performance counters or specific records within a database. It is for this reason that the OpsLogix Oracle Management Pack provides an Authoring template which enables personal customization of rules and monitors.

# BENEFITS

## OPTIMIZE IT

By using a readily available platform, IT security is guaranteed and monitoring your key components for Oracle within System Center Operations Manager decreases operational risk. Databases are essential to any organization. Any measure that is taken to prevent an operational event becoming a capital event and will make the company less susceptible to systemic problems.

# DECREASE

## OPERATIONAL RISK

There is an increasing amount of legalization and standardization that IT organizations will have to meet both now and in the future. OpsLogix Oracle Management Pack is in compliance with the (USA) Federal Cyber Security policy. FIPS encryption in OpsLogix products reduce data security risk factors.

# REDUCE COSTS

Optimize IT, decrease operational risk and meet compliancy requirements will effectively reduce costs through efficiency. The OpsLogix Oracle® Management Pack contributes to economic efficiency by reducing (personnel) costs when monitoring systems as well as reactively correcting errors.



# CASE STUDY

# GASUNIE

## SOLUTION-DRIVEN, PARTICIPATORY DEVELOPMENT: GASUNIE'S ENHANCED MONITORING CAPABILITY

Information is merely potential. Turning it into the kind of meaningful knowledge that makes it a true business asset in terms of proactive decision making and operational security and integrity takes something special. Gasunie, a major natural and green gas infrastructure company that operates in the Netherlands, Germany, and further afield, has devoted considerable time and effort to finding a tool with which it could manage and monitor its Oracle databases. Since Gasunie serves both the industrial and domestic gas markets through a gas transmission network totaling in excess of 7,500 miles in the Netherlands and 1,900 miles in Germany, finding the right tool was essential.



The OpsLogix Oracle Management Pack (MP) proved to be the best solution for their needs. Designed from the working perspective of an Oracle administrator, this MP augments the System Center Operations Manager monitoring platform.

In addition to further centralizing clear monitoring data, the MP enhances monitoring capability through, among other things, an Authoring template that enables personal customization of rules and monitors as well as prioritization according to different performance counters or specific records within a database. Moreover, the collective display of instance performance components in graphs makes it possible to perform both general performance analysis and specific performance analysis. The OpsLogix Oracle Management Pack, therefore, enhances the ability of end users to maintain a general overview of their IT ecosystems while remaining aware of business-critical details within those ecosystems at all times.

In the words of Frank Kurvers, system administrator at Gasunie:

**“The OpsLogix Oracle MP makes it possible for us to manage and monitor our Oracle databases in a thorough and genuinely proactive way, which means that we’re never caught on the back foot. It’s exactly the kind of solution that we were looking for. The pack also makes my day-to-day work a lot easier and has therefore given me a real edge – an extra gear.”**

OpsLogix believes in providing simple, logical solutions to optimize functional environments. As a company that provides tailor-made solutions based on the collective knowledge of 75 years of dedicated, proven computer programming and development, OpsLogix also believes in meeting the specific requirements of its customers. It does this by developing solutions with an individual customer for their individual needs. For this reason, Gasunie was involved in the MP’s beta phase. Based on this participatory process, OpsLogix incorporated a number of Gasunie-specific requirements into the MP that was developed for the gas infrastructure company.

Kurvers was and is:

**“Extremely pleased with the service provided. OpsLogix stayed with us throughout implementation and continues to assist us whenever necessary.”**

Following its long search for the right tool, Gasunie found that something special in OpsLogix.

# CASE STUDY

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# CASE STUDY

# KAS BANK

## KAS BANK: KNOWING THE WHATS AND WHYS

As a European specialist in wholesale securities services, an independent bank that connects financial institutions both within Europe and across the globe, as well as serves pension funds, insurers, asset managers, banks, brokers, and investment companies from offices in Amsterdam, London, and Wiesbaden, KAS BANK is very aware of the need to understand exactly what a given set of data is saying. In this context, KAS BANK was exploring ways to improve the monitoring of its applications and databases.

As Arjan van Rees, one of the specialists responsible for IT infrastructure management at KAS BANK explained:

**“The system we had told us when something was wrong but didn’t specify the cause. We’d have to report an error or a failure to the DBA, who would then have to trace the cause through what was effectively a manual procedure before taking the necessary corrective action.”**

Because the level of monitoring provided by the OpsLogix Oracle Management Pack (MP) is, in the words of Van Rees, “quite deep,” it is no longer necessary to ask the DBA, the database administrator, to trace the cause. The MP indicates the status of each file in the database. It is therefore immediately apparent if a given file is out of sequence or if there are issues in terms of space. This greatly improved ability to identify the “why” means significantly less work for both applications managers and database administrators. Additionally, enhanced data-related transparency and situational awareness does not come at the cost of security, since the MP makes it possible to define the rights and authorizations associated with a specific user profile.

According to Van Rees, first impressions of the MP were:

**“Very good. It is very easy to install and it worked right away.”**



Since it will be used in a distributed application environment, the MP is currently (March 2012) undergoing final testing at KAS BANK. Van Rees expects this process to be completed in a couple of weeks, after which KAS BANK will at all times be aware of the whats and whys of its Oracle databases.

# CONCLUSION

The OpsLogix Oracle Management Pack is a software solution that successfully bridges the two IT environments of Operations Manager and Oracle in any business sector that uses these platforms. Its key feature is in augmenting an existing System Center Operations Manager infrastructure with an Oracle environment while maintaining complete system security.

