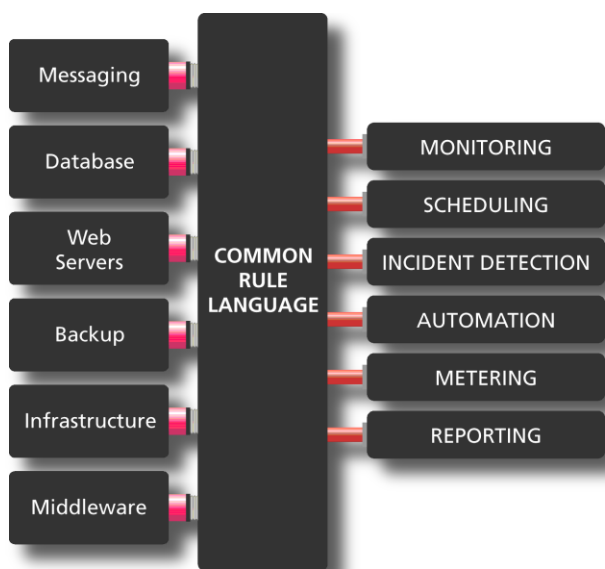


APPLICATION ASSURANCE

Introduction

Itheon's Application Assurance provides automated IT application management solutions that pro-actively detect and correct application problems to ensure the highest levels of availability and performance. A suite of rules based, application monitoring modules ensure that industry standard applications can be monitored out of the box without requiring any expensive programming skills or extensive set up time.



Key Benefits

- Improved performance and service uptime
- Increased visibility into SLA conformance breaches
- Improved performance and capacity forecasting
- Improved problem management
- Reduced manual intervention

Key Features

- Works out of the box, with no setup time
- Configures to any application environment
- Operates on multiple operating systems
- Fixes problems automatically
- Allows centralised monitoring of remote systems
- May be precisely customised for each environment
- Provides an intuitive, graphical user interface for management and customisation
- Integrates with Itheon's IT Service Management solution (ITSM)

Monitor Any Application Better

The automated, out-of-the-box, Intelligent Solution Sets operate through an integrated set of rules that detect and correct problems before users experience failures or slowdowns. The rules are processed by a highly efficient rule engine, which operates on each of

the application servers. All aspects of availability and performance are monitored, including:

- Basic operations, such as whether critical services are running
- Performance criteria, such as CPU, I/O and memory
- Storage criteria, such as free disk space, database size and log file size

As well as specific application criteria such as:

- Check the block size of the database, if it fails it logs an event that the database connection cannot be made
- Check for latches, if it fails it logs an event stating that the connection cannot be made
- Verify the status of all tablespaces on monitored databases (i.e. 'online' or 'offline')
- Generate a problem event if any cluster uses more than the threshold percentage of extents allocated to it
- Generate an event if the number of DML locks per concurrent user drops below the minimum ratio set in the variable file (10)
- Warn of excessive database growth or size and raise an alert when either exceeds a specified threshold
- Report low free space on writeable hard disks, helping to prevent file fragmentation, poor application performance and possible failure, transaction rollback, cancellation of maintenance functions, and ultimately the failure of SQL Server due to lack of space
- Monitor number of pending memory grants, identifying bottlenecks that will degrade server performance
- Monitor the allocation of memory to Active Server Pages (ASP), and the number of rejected ASP requests due to insufficient resources or full request queues
- Track the number of ASP runtime/ compile errors, which may indicate faulty ASP code, unavailable ODBC sources, faulty or unavailable DLLs, etc.
- Monitor for SYN attacks creating excessive number of incomplete or unsuccessful connections, alerting you to potential denial-of-service and ensuring fast resolution times
- Monitor email folders and mailboxes for:
 - ✓ Inactivity, number of messages
 - ✓ Total size of messages
 - ✓ Storage limit status
 - ✓ Send and receive queue lengths
 - ✓ Message delivered and submitted rates
 - ✓ Average time for local and remote message delivery
 - ✓ Replication receive queue length

APPLICATION ASSURANCE

The solution may be configured to notify staff of problems in real time or to take corrective action independently and monitor the results for success.

The solution also offers many notification options includes paging, SMS, e-mail, SNMP trap and centralised event reporting through the Management Console, enabling it to integrate with and supplement current staff notification practices.

The intuitive rule language allows creation of new rules without requiring the use of scarce and expensive developer resource. Customised rules may then be deployed to target systems using the iAM Management Console.

Sev	Site	Source	Date Time	State
3	UK-Bedford	ELSTREE	2009-05-08 11:34:00	U
3	UK-Bedford	ELSTREE	2009-05-08 11:34:00	U
View: All Open Application Events				
Displaying: 5 events.				
Class				Brief Text
ORACLE	Extents allocated to table ORA_ORDERS are nearly exhausted.			
ORACLE	Tablespace ORA_ORDERS is almost full.			
Microsoft Office	ID: 1, Application Name: Microsoft Office Excel, Application Version: 12.0.6425.1000, Micro			
SQL SERVER 2000	The amount of free storage left on disk C is very low at only 7.45% of capacity.			
SQL SERVER 2000	Some performance indicators have been found to be high.			

Rules are created from a natural language perspective without requiring expensive programming skills and typical tasks include:

- **Monitoring** of any application metric such as queue lengths
- **Scheduling** jobs using a flexible calendar with multiple criteria capability
- **Incident Detection** e.g. event log output and threshold breaches
- **Automation** of remedial processes or gathering of additional data to enable quicker problem resolution such as OS commands, triggered rules and logging
- **Metering** all statistics e.g. mailboxes, database tables, database response times, URL availability and response, disk utilisation, memory and CPU load, problem incidents and other informational events
- **Reporting** allows for manual or automatic generation of reports and graphs or combinations for any aspect of the monitored environment or SLA

Applications That Are Monitored

Itheon's Application Assurance module provides comprehensive monitoring and management for:

- Microsoft Exchange 2000/2003/2007
- Microsoft Information Internet Service
- Microsoft SQLServer 2000/2005
- Oracle 9/10g
- Blackberry Enterprise Server
- DB2
- Lotus Domino Server
- WebLogic
- Active Directory
- DHCP
- SMS20
- Site Server
- Terminal Server 2000
- HP Insight Manager
- CA ArcServe
- Symantec Backup Exec

ITSM and Third Party Integration

Application Assurance forms an important component of Itheon's IT Service Management solution and events can be forwarded into Itheon's Business Service Management module to provide a perspective on the impact that Application related events will have on essential Business Services. However, events can also be forwarded into other systems such as IBM's Tivoli, CA's Unicenter, HP's OpenView and Novell's Managed Objects or Service Desks such as Touchpaper, Heat and Remedy guaranteeing customer investment protection.



Itheon understands the challenges businesses face and will work as an extension of your business to deliver results. We focus on building true partnerships that are mutually beneficial and based on trust and respect. This is why so many of our customers return again and again to benefit from our unique approach to IT issues.

