

MasterScope Invariant Analyzer

System Performance Analysis Software



Leveraging NEC’s unique technology, MasterScope Invariant Analyzer automatically detects and diagnoses system failures that have been hardly detectable, and delivers improved service levels with reduced total cost of ownership (TCO).

Benefits

Silent Failure Detection

Accurately detect system failures that have been conventionally undetectable (referred as “Silent Failures”), before they become critical problems and affect your business.

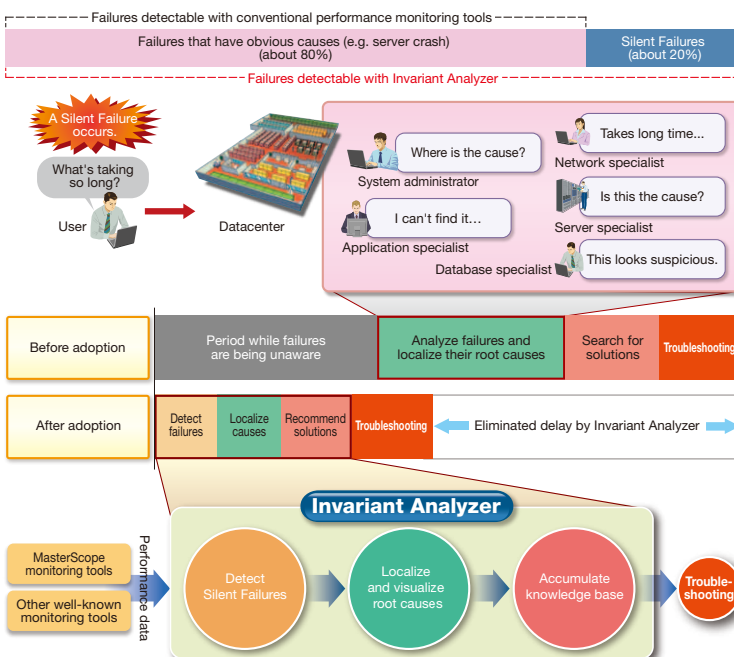
Failure Location Visualization

Clearly visualize specific component primarily causing Silent Failures, as well as the impact of such failures in graphical presentations, helping administrators investigate the failure more easily.

Simplified Performance Analysis

Automatically analyze the system performance data collected by well-known monitoring tools throughout the system, enabling efficient management for large-scale systems.

Product Overview



Challenges in Large-scale IT Systems

Among all the failures occurring in daily operation, our investigation revealed that about 20% of them do not have obvious causes therefore they are usually undetectable by conventional monitoring tools (referred as “Silent Failures”). While administrators are unaware of the failures until their severity increases to a level at which user experiences degrades, the failures keep affecting your business.

Also, even after administrators realize that there is a failure, they need to have a hard time diagnosing the root cause, depending on their own experiences and intuition.

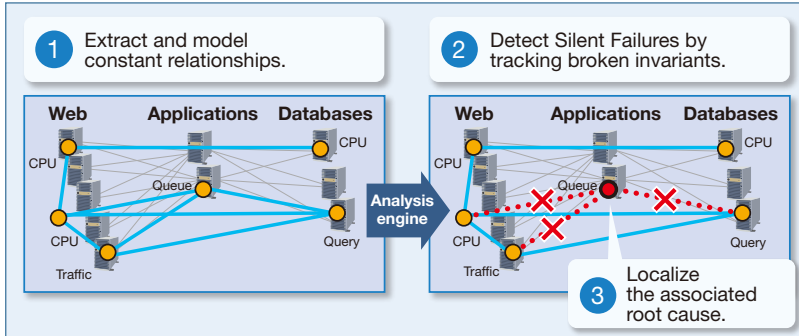
Solution

MasterScope Invariant Analyzer leverages NEC’s unique technology to automatically detect Silent Failures and identify their root causes even in large-scale systems, initiating proactive troubleshooting before those potential Silent Failures become actual critical problems.

Features

Model-based Failure Detection

After extracting and modeling constant relationships (i.e. invariants) among performance data collected during normal system operation, Invariant Analyzer tracks broken invariants in operational stage to automatically detect abnormal system behavior as latent Silent Failures. (NEC patent)



Root Causes Visualized

Display specific components affecting system behavior and their impact at a glance with pie charts and map views.

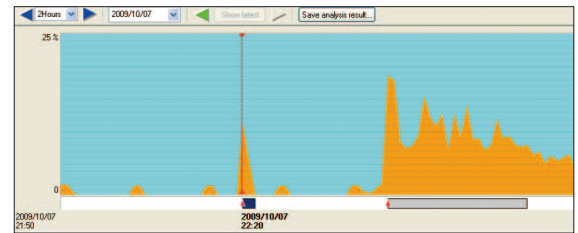
Troubleshooting Acceleration

Actions taken in response to each failure can be recorded for future reference. By simply referencing to those actions for similar abnormal behaviors in the past, current failures can be readily resolved.

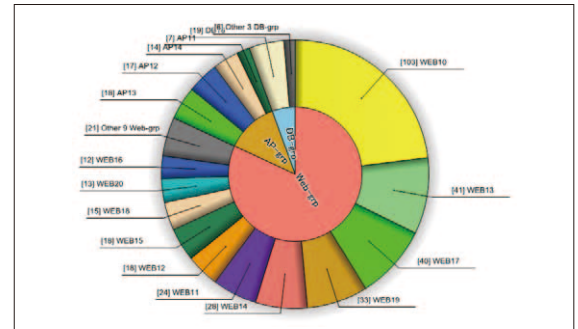
Real Time Analysis

By combining with "MasterScope MISSION CRITICAL OPERATIONS" (*), real-time analysis (collecting data, detecting failures and localizing their root causes) becomes possible. (Optional offer)

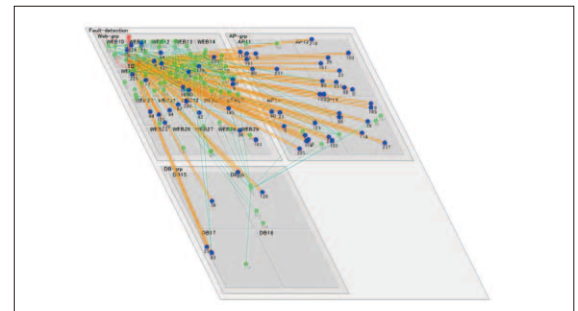
(*)NEC's integrated operations management tool



▲Graph shows the time of occurrence and severity of the failure.



▲Pie chart indicates the failure causes from a statistical point of view. (In the above figure, abnormal behaviors are concentrated on Web servers, which means the failure most likely occurred on one of the web servers (WEB 10)).



▲Map view indicates the system components causing failures and their impact.

Product Line-up

Product Name	Description
MasterScope Invariant Analyzer Manager	Analyzes system performance data and detects Silent Failures.
MasterScope Invariant Analyzer Counter License	Used to add the number of performance parameters to be analyzed.
MasterScope Invariant Analyzer Management Console	GUI to set up analysis and display results.

System Requirements

Supported Platform	Manager	Management Console
Windows Server 2003	✓	✓
Windows Server 2003 R2	✓	✓
Windows Server 2008	✓	✓
Windows XP Professional	—	✓
Windows Vista Business	—	✓

Regarding analysis target, Invariant Analyzer also supports other operating systems such as HP-UX, Linux, Solaris etc.

Contact Information

NEC Corporation. IT Platform Global Business Development Division

Email: global@soft.jp.nec.com

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