



Prophet: *One who prophesies, or foretells events; a predictor; a foreteller.*

Key Differentiators

BEZProphet for Oracle is the first proactive management solution designed to monitor production systems and anticipate the impact of change from the database services and business line perspectives. This approach to capacity and performance management can help your organization look both near and far into the future and avoid potential throughput issues well before they interrupt daily operations. There are three primary capabilities that make BEZProphet a truly unique solution.

1. Automatic Predictions:

Automated or “As-Is” predictions provide the user with a 12 month performance roadmap of where their application performance is heading. These types of predictions are also referred to as “do nothing” predictions to indicate that if no changes are made to the existing hardware configuration and if the application continues to grow in the manner it has been in the past, the path that the application is heading down is revealed. BEZProphet’s automated prediction approach runs “As-Is” predictions based on a user-defined schedule (daily, weekly, monthly, etc ...). The automatic predictions use current application performance profile data along with Workload Growth Forecasts, based on historical trend patterns, to predict Response Time, Throughput and Resource Utilization expectations over the next 12 months for each Workload defined to the server being analyzed. The results are then compared against the Performance Objectives that were set for each Workload to see if and when any performance objective breaches are on the horizon. The BEZProphet Notification Engine will alert users to upcoming performance breaches and provide some assistance and recommendations on what can be done proactively to avoid this problem before it strikes.

2. Evaluating Alternatives with the Prediction Engine:

“What if” evaluations are provided through user-determined change scenarios predictions. The prediction engine supports a host of “what-if” scenarios in the areas of growth projections, hardware changes (server and storage), database design changes, workload elimination, server consolidations, new application introductions, etc. Below is a sample listing of the “what-if” scenarios available through BEZProphet. Multiple change scenarios can be compared against each other. Each prediction result set can identify the overall impact of the change to the application and provide detail sensitivity analysis broken down by the Workloads on the system.

Example of some of the questions that can be answered:

- *What if we migrate this application to Oracle RAC; moving from a single node instance to a multi-node cluster?
- *What if we extend RAC by increasing the nodes in a clustered environment?
- *What if we add CPU or memory to the server? How much time will it buy us before another performance issue develops?
- *What will be the long-term performance impact of adding an index to my database?
- *What will be the long-term performance impact of adding more users to a particular application?
- *What if we change hardware vendors (Change O/S vendors? Change storage vendors?)
- “Will our failover system support our performance objectives in case of emergency?”
- “What is the impact of moving that new application module into our production system?”
- “How will an increase in database size and data volume growth impact the performance of the application over time?”
- “Can I reduce license costs by consolidating Oracle instances?”

3. Comparative Analysis:

BEZProphet supports a number of comparison options to provide the application administrator with a clear picture of the changing trends and patterns within the application. Some of the options are described below.

A. Abnormal Trend Isolation

This is an automated process that runs on a daily basis to compare the newly collected data with a rolling baseline of historical activity. Using SPC (Statistical Process Control) filtering algorithms, Response Time, Throughput and CPU Utilization exceptions are highlighted and recorded at a Workload level. If the number of exceptions exceeds the user-defined threshold limits, the Notification Engine is invoked to alert the customer to this abnormal (or changing) trend pattern. The BEZProphet UI will then allow the customer to drill into the details of the abnormal trend to why the new performance pattern has emerged.

B. Period-to-Period comparisons

Within the Analysis section of the BEZProphet UI, the user can select a focused time range and a set of metrics to review. This set of information can then be compared with any other time period in the past. This allows for comparisons of current data to a specific peak period, or to gauge the before and after effects of a recent application change. The changes between the periods are measured and quantified and provide factual results on period-to-period differences or whether the desired effect of a recent change was achieved or not.

C. Actual vs Expected deviation

Running “What-if” change scenarios through the BEZProphet prediction engine helps the customer in evaluating the impact of different growth and change alternatives. More importantly, it sets the right performance expectations for the application, and its workloads, if the growth expectations and change plans are met. BEZProphet automatically compares newly collected data to these predicted values to ensure that the performance expectations are actually being achieved. If actual measurement data begins to deviate from predicted expectations, the BEZProphet notification engine alerts the customer to this problematic situation. The BEZProphet UI’s “Actual vs Expected” drill down functionality will pinpoint the cause for the deviation and allow the customer to reset future expectations accordingly by running a new prediction.

D. Workload Profiles

Customers can create Workload Definitions within the BEZProphet product. A workload is defined through a set rules that allows a series of SQL requests to be grouped together to form logical “resource consumer groupings” aka lines-of-business. Workloads can represent the processing activity for different business organizations, application modules, transactions, etc... The definition of a workload is left up to the customer to define. For each hour, BEZProphet combines OS, database and disk measurement data together and provides a comprehensive set of performance profiles to be compared and analyzed for each Workload. The workload profiles contain critical information on the performance characteristics, resource utilization and data access patterns for each workload. Detail drilldown to individual SQL and Table access details are provided within the BEZProphet UI.

About BEZ Systems

Since 1993, BEZ Systems has been offering innovative Proactive Performance Management (PPM) solutions that provide a line-of-business view of application resource utilization for today and tomorrow. These solutions allow enterprises to accurately profile application performance, compare 'change and growth' alternatives, and forecast future requirements. Future performance predictions are an invaluable component of verifying that business objectives and performance goals can be met, thereby minimizing any shortfalls in service.

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