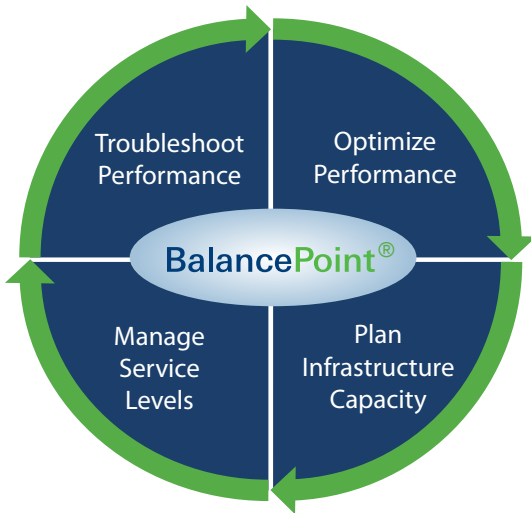


## Virtual Infrastructure Management



### BalancePoint Benefits:

- Manage virtual infrastructure end-to-end from virtual and physical servers to storage disks
- Reduce troubleshooting time by 80%
- Optimize VM densities
- Improve server and storage utilization
- Manage Service Levels

### BalancePoint Key Features:

- **Cross-domain automated visualization** - Quickly identify where problems occur (application, server, or storage)
- **Unique Akorri performance analytics and metrics** - For virtual machines, server, and storage
- **Planning and analysis reporting tools** - PtoV migration performance, chargeback, capacity planning
- **Automated reporting** - Flexible reporting engine produces 360° infrastructure management dashboards and scorecard reports
- **Broad interoperability** - Agentless data collection
- **Virtual appliance with agent-less design** - Rapid installation and time to value
- **Plugs into VMware vCenter Server** - See and manage the entire virtual and physical infrastructure

## Dynamic Data Center Optimization

Akorri™ BalancePoint® virtual infrastructure management is the only performance and capacity management software providing analysis across IT virtualization layers and technology silos for both virtual and physical, server and storage infrastructure. BalancePoint helps companies troubleshoot problems within minutes, optimize utilization, and improve performance in the dynamic data center.

Unlike traditional system and element management tools that only look at one silo (physical or virtual servers or storage), BalancePoint agentless software dynamically models and analyzes the entire infrastructure to understand how application workloads, utilization levels and resources interact bringing much needed infrastructure-wide intelligence to the data center. Designed to go well beyond basic performance monitoring tools, BalancePoint is a powerful optimization solution that enables organizations to operationally advance virtualization providing a stepping stone to the private cloud.

## Cross-Domain Analytics – A Unique Approach

The key to BalancePoint's ability to analyze interdependencies between resources in separate IT domains is **Cross-Domain Analytics™** technology. These unique analytics provide intelligent alerting, actionable recommendations and proactive service management tools to help with remediation, optimization, and planning. BalancePoint produces unique performance and capacity metrics that enable IT operations teams to better communicate, collaborate and manage service delivery as a team.

**BalancePoint** Dashboard Overview:

- Summary:** Data Topology, CPU, Memory, Host Connection, Performance Index, Alerts, Events, Configuration.
- Applications by Status and Priority:**

| Name          | Type       | Server        |
|---------------|------------|---------------|
| osaid         | DB_CLUSTER | dev-aws-int10 |
| osaid         | DB_CLUSTER | dev-aws-int14 |
| dev-aws-int10 | General    | dev-aws-int10 |
| dev-aws-int14 | General    | dev-aws-int14 |
| dev-aws-int16 | General    | dev-aws-int16 |
- Application Summary:**

| State       | Discovered Application Types | Server Count |
|-------------|------------------------------|--------------|
| GENERAL     | 47                           | 2            |
| FILE_SYSTEM | 1                            | 0            |
| FILE_SHARE  | 1                            | 0            |
| TOTAL       | 50                           | 64           |
- Virtual Machine Migration Report:**

| Virtual Machine | Distinct Host Count | Migration Count | Host Server                           |
|-----------------|---------------------|-----------------|---------------------------------------|
| 2-3 Build       | 1                   | 1               | Current Host: ESX40 210 - BP Servers  |
| BP-2.5-INT      | 1                   | 1               | Current Host: ESX40 210 - BP Servers  |
| dev-aws-int10   | 1                   | 1               | Current Host: dev-aws-01 akorri.local |
| dev-aws-int1    | 1                   | 1               | Current Host: dev-aws-01 akorri.local |
| dev-aws-int10   | 1                   | 1               | Current Host: dev-aws-01 akorri.local |
| dev-aws-int11   | 1                   | 1               | Current Host: dev-aws-01 akorri.local |
| dev-aws-int13   | 1                   | 1               | Current Host: dev-aws-01 akorri.local |
| dev-aws-int14   | 1                   | 1               | Current Host: dev-aws-01 akorri.local |
| dev-aws-int15   | 1                   | 1               | Current Host: dev-aws-01 akorri.local |
| dev-aws-int16   | 1                   | 1               | Current Host: dev-aws-01 akorri.local |
| dev-aws-int17   | 1                   | 1               | Current Host: dev-aws-01 akorri.local |
| dev-aws-int18   | 1                   | 1               | Current Host: dev-aws-01 akorri.local |
| dev-aws-int2    | 1                   | 1               | Current Host: dev-aws-01 akorri.local |
- Performance Graphs:** Latency, Usage & Throughput. Total Percentage IOPS. Time Period: 1d, 1w, 1m, 1y.

## Visualize End to End Infrastructure and Troubleshoot Performance Problems

*Save Time and Money by Reducing Troubleshooting Time to Minutes*

Effective root-cause analysis requires a comprehensive view of all elements within the IT infrastructure. BalancePoint dynamically maps each element and its interdependencies from application to virtual and/or physical server to storage array disk group. Performance issues are highlighted in a color-coded interactive map and issued as alerts so IT users can immediately pinpoint and resolve. Administrators can drill down for deep analysis into the element with the bottleneck. **Application Contention Analysis** shows which applications are competing for the same infrastructure resources at the same time, impacting overall system performance. Problem isolation that used to take hours or days is reduced to minutes.

## Optimize Performance and Utilization

*Reduce Capital Expenditures by Getting the Most out of your IT Infrastructure*

True infrastructure optimization requires insight and analysis into both utilization and performance; virtualization makes this challenge more difficult. Focusing on only one of the two is incomplete. BalancePoint offers this combination enabling IT organizations to maximize their infrastructure performance at the lowest possible cost. Over-provisioning wastes money; under-provisioning impacts performance.

BalancePoint analytics determine the optimal balance between cost and efficiency. By collecting data from each element (VM, server, and storage array) in the infrastructure and performing modeling and analysis, BalancePoint produces unique data center level statistics not found in any traditional system management tool. **Performance Index** scores the balance between application requirements and the infrastructure's ability to deliver. It is produced from a virtual machine perspective and from a virtual host perspective so administrators can maximize VM densities as well and appropriately size VMs. BalancePoint's virtual machine **CPU Efficiency, Entitlement and Host Resource Contention** enable customers to get more performance and scalability from their virtualized environments.

### Specifications:

Web-based GUI Console

Virtual Appliance: Requires VMware ESX Server 3.x with 2 CPUs @ 2.33Ghz min and 4GB VM memory, 4 disks (RAID 5/10) with 80 GB required.

Some arrays may also require an Akorri proxy VM with 1 CPU @ 2 GHz and 1 GB VM memory.

Discovery, data collection, and analysis for elements including:

- Servers: MS Windows, HP-UX, IBM, RHE Linux, SUN Solaris, VMware ESX
- Storage: 3PAR, Dell EqualLogic, EMC, HDS, HP, IBM, NetApp, Sun - SAN and NAS (may require SMI-S proxy and/or native CLI)
- Applications: RDBMS, OLTP, OLAP, File, Email, Streaming Media, et. Al. with drill-down for Oracle 9i/10g, MS-SQL Server

### About Akorri

Akorri develops cross-domain analytical software solutions that optimize performance and utilization in the dynamic data center. BalancePoint virtual infrastructure management software provides automated, infrastructure-wide visibility and analysis to help enterprises fix problems, optimize utilization and improve performance for both virtual and physical servers and storage. IT organizations use BalancePoint to reduce IT infrastructure total cost of ownership and ultimately enable a service oriented infrastructure.



BalancePoint enables administrators to provision the proper server and storage resources for the proper workload.

## Plan Virtual Infrastructure Capacity

*Accurately Forecast when Capital Purchases are Required*

Virtualization enables organizations to dynamically allocate resources where needed. Efficient capacity planning delivers IT resources to applications when they need it without over-provisioning. BalancePoint's data center level statistics provide visibility and predictability into performance and capacity growth. **Automated Scorecards** on VMs, servers and storage provide a consistent set of metrics on all IT resources. BalancePoint's reporting of the storage array and individual disk group performance and capacity provides customers insight and understanding unlike any other management application. Leveraging BalancePoint as an independent advisor, IT managers only invest in capital equipment when they truly require it, not when an IT vendor says they do.

## Manage Service Levels – Meet Business Requirements

*Confidently Virtualize More Business Critical Applications*

Business users demand Service Level Agreements. Virtualization's abstraction of the physical infrastructure and underlying resource contention make this challenge more difficult. BalancePoint provides the predictability and confidence for IT staff to meet their business user demands. **Infrastructure Response Time**, shows the performance delivered to an application by all of the IT resources assigned to it. Use it to baseline and predict future infrastructure service, and even alert on service deviations. BalancePoint's **Abnormality Index** predicts when applications are behaving inconsistently and alerts administrators for proactive resolution. **Chargeback Reporting** allows virtualized application costs to be accurately tracked. Today's data center manager needs to increase their use of virtualized infrastructure and to deliver SLAs to the business. Without BalancePoint's detailed understanding of the application performance and its impact on the underlying infrastructure, managers cannot consistently meet both objectives.