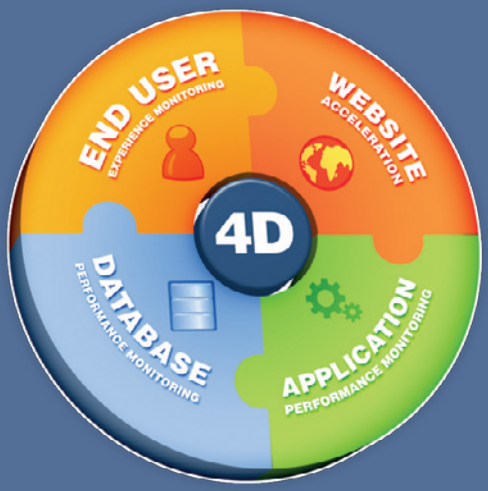


Everything you need to monitor and accelerate the performance of SharePoint – typically customers see 40%+ faster performance for users in a matter of hours.

4D Performance for SharePoint

At Application Performance, we are passionate about performance!

We can help you avoid the potential pain and frustration of slow SharePoint performance by applying our ***4D performance for SharePoint*** solution.

We support all versions of SharePoint, including 2010, and can tailor an ideal combination of ***4D performance for SharePoint*** modules and services to quickly meet your needs.

Microsoft® SharePoint®

Available as a subscription – so just buy what you need when you need it

> *"A high performance SharePoint site is critical for achieving the maximum return from your SharePoint investment. This solution provides an essential service to any business deploying SharePoint."*
>
> Ed Robinson, CEO, Aptimize

www.applicationperformance.com

Best practices for SharePoint performance

The better planned a SharePoint implementation is the less likely there will be performance or a capacity problem after it goes live.

However, no amount of planning (see inset box) can completely remove the risk of something unexpected occurring in an environment which is complex and constantly changing.

Keep in mind that you often have to rely on network links to end users where the quality and performance are out of your control.

That is why ongoing performance monitoring and optimisation before, during and after 'go live' is still absolute best practice. There is no other way to continually confirm the actual level of performance you are delivering to your users and then have the information available to head off problems that do occur.

Planning for improved SharePoint performance

From the start you should plan your SharePoint environment with performance and capacity in mind. You need to think about the choice of infrastructure and the impact it will have on performance.

There are important choices to be made: for example, whether to use physical or virtual hardware, the system specifications for the different tiers, the type of storage, network topology, 32-bit or 64-bit, caching algorithms, authentication protocols and tuning parameters within IIS and SQL Server.

A four dimensional approach

Our 4D or four dimensional approach to optimizing end-to-end SharePoint performance is unique – tackling four tough challenges in one simple to deploy solution.

Challenge 1	End user experience monitoring
Challenge 2	Web Front End acceleration
Challenge 3	.NET application server monitoring and tuning
Challenge 4	SQL Server database monitoring and tuning

In short we've taken all the pain out of delivering faster SharePoint to your users, with tangible results seen within hours rather than weeks.

4D Application Performance will help you adopt 'best practice' in all the key areas…

- **Response times:** By knowing the actual response times delivered to each user in each location for each of the pages on your site. This means you can be proactive in spotting trends in poor performance and identifying who is affected.
- **Optimisation:** By optimising the content of each page to reduce round-trips and improve response times. This is particularly important where your SharePoint farm is remote from the end users who access it. As the physical distance between the client's browser and server gets larger, so does network latency and the effect of latency combined with many roundtrips will mean poor page load times.
- **Coverage:** By choosing a monitoring solution with good wide coverage of the network, application, infrastructure and database. This means that you can quickly spot where a bottleneck might be occurring and correlate this with other performance indicators from other application tiers.
- **Database monitoring:** By selecting a database monitoring tool with 24x7 collection and deep drill down to see how long queries are taking and precisely where that time is spent inside the database. This means that you can easily identify slow-downs whenever they occur and quickly see where SQL, objects or database parameters need to be tuned in order to remove any performance bottlenecks.

> *"As soon as I turned on the Aptimize Website Accelerator for our SharePoint site it was like it had found a downhill run with a tail wind. The difference was very dramatic."*

CASE STUDY

PZ Cussons relies on Microsoft SharePoint for its company-wide intranet across Europe, Asia & Africa, reaching thousands of employees globally, and receiving up to 12,000 page views per day.

This is of critical importance to PZC, hosting all manner of information from the CEO's financial dashboards, down to the most commonly-read company news.

PZC turned to Aptimize to provide a 'performance safety-net' for this important SharePoint deployment; particularly as network latency between the UK hosted servers and users in Africa and Asia could often be large and threaten the speed at which pages could be delivered.

Application Performance were able to implement Aptimize in just a few hours, and immediately PZC saw an average 50% reduction in page load times, and for some pages, as high as 75%. A secondary key benefit was seen to be the overall reduction in network usage, saving several Gb per day over highly utilised international network links.

Aptimize is key to PZC's plans going forward with scope to accelerate the performance of websites other than SharePoint.

4 steps to faster SharePoint

1. **Enhance end-user experience:** by monitoring real users in real time

Ultimately this is the only performance measurement that really matters. If your users are getting fast page load times so they can do their job efficiently without frustration then other performance measurements are largely irrelevant. We recommend you measure the real end user time response times (not only synthetic or ping response times) continually. WebTuna lets you know exactly what performance every user and every location is experiencing for every page on your site, building up a long term history automatically.

WebTuna monitors real page load times for all SharePoint page views from all users, all of the time.

2. **Accelerate:** every page of your SharePoint site

Accelerate your SharePoint site with the same product Microsoft uses to speed up its own SharePoint 2007 and SharePoint 2010 websites. Aptimize can optimise SharePoint pages in real time, instantly accelerating your SharePoint website, portal or intranet. Aptimize works by merging, compressing and caching page resources, typically reducing load times by about half. The product requires no code changes, no extra hardware and configuration usually takes under an hour.

Aptimize can halve your SharePoint page load times without any code changes or extra hardware.

3. **SharePoint Application Performance Monitoring:** monitoring performance for business transactions

AppDynamics is quick and easy to install. Most things are auto-configured unlike other instrumentation based monitors where a time consuming configuration process is usually required to get the instrumentation levels right. It also takes away the risk of over-instrumenting the application which can add too much overhead or under-instrumenting which can leave blind spots.

Within minutes of installation AppDynamics will dynamically discover your SharePoint application topology and business transaction flows. This complete visibility of the end-to-end transaction flows means you will be able to find the root-cause of SharePoint performance problems quickly wherever they reside.

AppDynamics give complete visibility of the end-to-end transaction flows across your SharePoint farm and any other integrated applications.

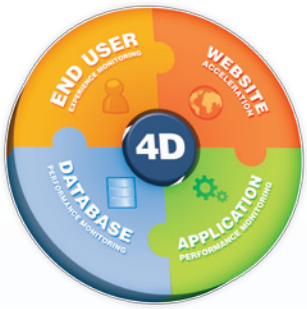
4. **SQL Server:** monitoring and tuning for your backend database performance

We recommend you monitor SQL Server and the SQL queries which execute against it using an 'always-on' collector agent which means that it can build up a historical trend of SQL performance over time. This allows you to drill down into any slow periods no matter when they occur. We suggest using a wait-time based approach to measurement to see which queries are taking longest time or consuming the most resources and which resources (CPU, I/O, locks etc) are being utilised or waited on.

DBTuna continuously monitors SQL Server and the SQL being executed highlighting exactly what needs to be tuned.

> *"Aptimize helps speed up the delivery of web-based content when being delivered across a geographic distance. This is particularly effective with SharePoint given the way those web pages are constructed."*

passionate about performance



4D APPLICATION PERFORMANCE

Accelerating, monitoring and optimising the performance of websites, applications and SharePoint

Buy one or more modules as you need them.

WEBSITE ACCELERATION

40% + faster websites and **SharePoint** applications in a matter of hours. No code changes or extra hardware – just happier end users

aptimize

END USER PERFORMANCE

Measures the performance as seen by real end users of your websites, applications or **SharePoint**

WEB Tuna

.NET, JAVA AND CLOUD PERFORMANCE MONITORING

Measure performance and resolve bottlenecks for even the most complex business transactions

AppDynamics

DATABASE PERFORMANCE

Instant monitoring and bottleneck detection for **SQL Server**, Oracle, MySQL, Sybase and NetApp

DB Tuna

- **Quick and easy to deploy – see benefits in a matter of hours**
- **Start with one module – expand to all four over time**
- **Available as a subscription – just buy what you need when you need it**

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