IBM Strategy and Technology Group

Eagle Total Cost of Ownership Study

Frequently Asked Questions

Version 1.0

IBM

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Introduction

Need Help Understanding Your Total Cost Of Ownership (TCO)?

If your company runs a mainframe, chances are you've gotten calls from Microfocus, HP, Oracle and others to move off the mainframe and onto a distributed system. Their rhetoric sounds convincing and goes something like this: "The mainframe is inflexible and expensive;" "distributed platforms significantly improve operating costs" or "re-hosting is low-cost and low-risk."

But which IT infrastructure really costs less? The answer is neither simple nor the same for every company because much depends on factors that are unique to each IT environment. So what's the answer for you? It's the IBM Eagle Team.

Since 2007, the Eagle Team has worked with hundreds of customers, around the world, helping them examine the cost differences between System z and distributed options. And many of our clients have realized savings in the millions from our studies.

This **no charge** study considers the costs of operating an IT platform over a span of five years and is specifically tailored to your enterprise. The recommendations will assist your company in determining its strategic IT infrastructure.

If you are interested in learning more about how our TCO studies can benefit you, please read the "Frequently Asked Questions" starting on page 4. Or contact Craig Bender at csbender@us.ibm.com.

Frequently Asked Questions

Question:
What is an Eagle Study?

Answer:
An Eagle Study is a **no charge** total cost of ownership analysis that examines the cost differences between alternative IT approaches and provides recommendations to assist you in determining your strategic IT infrastructure.

The TCO Study considers key costs in operating IT platforms over a span of five years. Why five years? Our experience tells us a one-year study is insufficient to show the benefit of strategic spending. Most importantly, the study is specifically tailored to your enterprise.

An Eagle TCO Study is different from other types of TCO studies in that ours is focused on a specific application or a group of servers and their software stack.

Question:
Is there just one type of Eagle TCO Study?

Answer:
The Eagle Team conducts three broad types of TCO studies: Consolidation, New Workload and Off-load analysis.   Some customer environments dictate that a study will cover multiple types. For example, some workload may be suitable for consolidation, while yet other pieces may be sensible to offload. This blended approach can also consider the options available with new technologies like the IBM zEnterprise which incorporates System x, POWER and System z elements into a single computing platform.

Question:
What is the scope of the study?

Answer:
The TCO study examines a comprehensive set of key cost factors related to an application or a group of servers operating an IT infrastructure:

* Hardware acquisition, maintenance, and refresh
* Network and communication costs
* Software acquisition and maintenance, including middleware and systems management software
* Migration costs
* Disaster recovery
* Energy and real estate costs
* Operations labor costs
* Production, development and test

These costs are analyzed separately for mainframe and distributed platforms and compared over a five year period.

Question:
How does it work?

Answer:
The Eagle team works with your IBM account team to prepare for the on-site meeting, where we gather information such as business goals, growth strategies, current costs and pricing information as well as details of your IT infrastructure - applications, workloads, utilization, quality of service requirements, and approaches under consideration for improving the IT infrastructure. This on-site meeting is typically one-half day.

Once this information is collected, the Eagle Team prepares the study off-site during which time we ask your representatives be available for phone/email consultation and clarification of any issues. Once completed, the final report will be presented with all the inputs: assumptions, the financials and key operating costs for all alternatives.

Question:
Who from the client company should be assigned?

Answer:
A sponsoring manager to help establish the scope of the study and participate in reviews which usually take a few hours. An operational manager or team-lead to collect data on servers, software, networking, etc. Information about server types, processor types and utilization can be provided by technical leads. An operational manager may be necessary to provide information about costs and charge-back practices.

Question:
How many person days will be required for this project?

Answer:
Usually no more than two to three person days for the data collection process.

Question:
Should this be a formal project internally or can it be dealt with under a BAU?

Answer:
This is almost always handled as BAU. It is helpful to appoint a single point of contact to funnel requests for information and responses.

Question:
What information will you need?

Answer:
That depends on the type of study performed but the information usually falls into 4 dimensions:

- Line items: hardware, software, labor, network, power, space, and storage costs
- Environments: production, test, quality assurance, development, batch, disaster recovery
- Time: migration, growth, hardware upgrade or refresh, Enterprise License Agreements and software terms and conditions
- Non functional requirements: availability, skills and risk

A more detailed description would include, for example:

- Servers: How many? What brands? How many cores, specifications for cores (e.g. 2 CH/Quad-Core/2.0GHz), specifications for memory. Server utilization (average), Memory utilization (peak)
- Technology Refresh policies: 3 years? 4 years? 5 years? More?
- Virtualization Experience: Current usage of VMWARE/LPAR/VPAR. For virtualization servers the same information as above PLUS, if available, how many LPARS per server and the average utilization of consolidation server and/or utilization within LPARs
- Middleware: versions, license costs, S&S costs
- Networking: ports, bandwidth requirements ... costs and/or charge-back practices for ports and bandwidth
- Memory: standard memory footprints
- Storage assumptions
- Floor-space and power: cost per square foot or square meter. Cost per kWh.
- Clearance policies for servers, density of racks if applicable.
- Personnel costs: cost per full-time equivalent, coverage costs, provisioning costs, version testing and validation
- Disaster Recovery practices: duplication of sites? Role of Dev/Test servers in DR provisioning, use of capacity backup upgrade (CBU), GDPS, Hyperswap
- Development and Test Provisioning.
- HA requirements. Active-Active or Active-Passive failover requirements

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Question:
How many TCO studies has the Eagle Team conducted?

Answer:
Since 2007, the Eagle team has conducted more than 200 studies worldwide for companies big and small; across a wide range of industries. Some customers have asked for single case studies and others multiple case studies.

Question:
Who are some of the customers you've done studies for? Do you have references?

Answer:
Studies for financial services companies, home product manufacturers, high tech chip makers, government agencies, airlines, retailers, health care providers and distribution companies are among those who have benefited from Eagle Studies.

We don't actively pursue formal customer references because clients generally prefer questions about their unique situations remain private.

Question:
If this is truly valuable to me why is it free? Won't it show IBM always less expensive than an alternative solution?

Answer:
The Eagle Study methodology embraces the "Fit for Purpose" concept and studies are scoped to take advantage of IBM technologies to add business value. In addition to comparing fairly, the experience of the IBM Eagle team often is used to take cost out of a source environment when looking at alternatives for running applications on System z or distributed servers.

Question:
When would you want to do an Eagle Study?

Answer:
Eagle Studies are best done with specific customer objectives in mind. A client may be considering moving workloads from one platform to another (offloading from System z or consolidating workloads from distributed platforms).

A client might want to identify the costs to exploit new virtualization alternatives to reduce server sprawl or identify ways to minimize costs of additional database servers or finding the lowest-cost platform for XYZ application.

Question:
What experience / skills/ qualifications do Eagle Team members possess?

Answer:
The Eagle Team's twelve members have 100s of years of experience. Team members are assigned to make the most of their skills. The profile of a typical Eagle Team member would be as follows:
- 5+ years performing TCO studies
- 20+ years of IT experience
- Project Management Certified

- Masters in Business Administration and/or Masters in Engineering Science
- Met with more than 200 customers since 2007
- Familiar with all IBM and competitive servers
- Hardware and software pricing expert

Question:
What is your sizing methodology?

Answer:
We compare alternatives by looking at cost elements over a 5-year time period.

Approach
- Establish scope of study
- Gather information
- Build the cost model
- Review with customer and iterate as needed
- Produce final report

Process
- Meet with customer face-to-face to establish scope and gather information (1 day),
- Complete study, usually 30 days, by developing a cost model using inputs and industry standards
- Review and Iterate

Question:
How is an Eagle Study different from other TCO studies? Why couldn't I just do a TCO study myself?

Answer:
Our TCO Studies use a proven methodology, state-of-the art tools and a dedicated team of experts with years of IT experience. An Eagle TCO study does not use "industry average" benchmarks; rather, the study takes into account your company's unique situation, costs and vision. We've found, often times, that Eagle TCO studies have complemented and amplified earlier customer studies.