



Business Case

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Capital Software Corporation
4451 Brookfield Corporate Drive • Suite 100
Chantilly, VA 20151
Phone: 703-404-3000
E-mail: Sales@CapitalSoftware.com
Web Address: www.Enterprise-Q.com

Table of Contents

1 INTRODUCTION 1

2 OVERVIEW..... 2

3 ADVANTAGES 3

4 SUCCESS STORIES 5

5 CASE STUDIES 6

6 ROI SUMMARY 11

1 Introduction

This document presents the business case for using Enterprise-Q (EQ) in a Tivoli environment. It provides a brief explanation of the product and answers several compelling questions, like:

Why purchase Enterprise-Q when I have development skills in-house?

What kind of results have other companies experienced using Enterprise-Q?

What kind of return-on-investment can I expect if I use Enterprise-Q?

The following is a list of some companies that are using Enterprise-Q. Please contact our offices to request an updated reference list:

- Bank of America
- Chubb & Son Insurance
- Credit Suisse
- EDS for NMCI (Navy/Marine Corp Intranet)
- General American Life Insurance
- Kemper Insurance
- Mead Corporation
- NASD
- Nestle Corporation (USA and Global)
- NMIMC (Navy Medical Information Management Center)
- PEC Solutions for DEA (Drug Enforcement Administration)
- Unisys for ATF (Alcohol, Tobacco & Firearms)

All of Capital Software's Enterprise-Q customers are referenceable accounts. In fact, all have enthusiastically agreed to speak with any potential Enterprise-Q customer to tell them of the successes experienced using EQ. We encourage you to contact them for more information about how they are using Enterprise-Q, how EQ has enhanced their ability to leverage the substantial Tivoli investment, and the cost savings they have realized since installing Enterprise-Q.

2 Overview

Enterprise-Q (EQ) is an enterprise management solution that complements the Tivoli Managed Enterprise (TME). EQ makes Tivoli extremely manageable by providing a simple, consistent, and extensible solution that integrates readily with the TME Framework and core applications. EQ reduces your Enterprise Systems Management (ESM) implementation and operational costs, and increases productivity at the same time. EQ achieves this by providing an easy-to-use, web-based interface to deploy and maintain your Tivoli environment.

Essentially, Enterprise-Q is an alternative to developing an in-house, "one-off" solution and/or establishing intensively manual procedures. Out of the box, EQ provides the enterprise management methodology and standards your organization will require to successfully implement Tivoli.

EQ greatly enhances your ability to perform Tivoli enterprise management by:

- **Empowering Administrators** – Empower novice users to achieve expert level productivity in a fraction of the time it would normally take.
- **Automating Processes** – Automate otherwise manually intensive efforts, freeing personnel for other, more challenging, activities.
- **Coordinating Activities** – Coordinate all Tivoli operations so as to not overwhelm your IT resources, thereby minimizing the overhead of your ESM solution.
- **Auditing Procedures** – Track and report current and past enterprise management activities, providing accountability and auditing capabilities within your organization.

The Enterprise-Q solution, like all other software solutions, boils down to three elements: people, processes, and procedures. Enterprise-Q supplements your people, automates the processes, and simplifies the procedures:

- **People Supplement** - Enterprise-Q provides the mechanisms that might otherwise be done manually thereby supplementing employees/consultants, allowing your organization to accomplish more with less.
- **Process Automation** - Enterprise-Q provides a queuing capability for centrally coordinating and managing all Tivoli enterprise activities, automating much of the implementation and operational needs of the enterprise.
- **Procedure Simplification** - Enterprise-Q provides a web-based interface to standardize and simplify procedures required to reach the goals of enterprise management.

EQ is currently being used to manage over a half million systems worldwide by some of the biggest organizations on the planet. Join these companies in using Enterprise-Q, and concentrate your efforts on doing what your company does best. Select Enterprise-Q and allow Capital Software Corporation to provide the complete Tivoli ESM solution.

3 Advantages

Enterprise-Q reduces Total Cost of Ownership (TCO) of your IT infrastructure and increases productivity at the same time. EQ achieves this by providing a simple and consistent interface to initiate, track, report, and coordinate all of your Tivoli operations. Enterprise-Q installs quickly on a single system, allowing your organization to leverage the benefits of Enterprise-Q immediately.

This section explains why so many companies have chosen Enterprise-Q, and the benefits they've realized as a result of that choice.

Time to Market

Because EQ installs onto a single server, no widespread client updates or installations are required. Therefore, a full installation takes only minutes, rather than days, weeks, or months. As a result, users can begin benefiting from this product within an hour of inserting the Enterprise-Q Installation CD.

Furthermore, installing Enterprise-Q does not affect anything else in your environment. So, there are no 'back out' procedures required since no other systems are affected. This virtually guarantees Enterprise-Q will not cause any adverse affects to your existing environment.

Reliability

Enterprise-Q is a documented, field-tested product developed by Tivoli-certified engineers who "cut their teeth" in the field as consultants. It is a solution that has stood the test of time and is backed by an entire company dedicated to one goal: simplifying Tivoli enterprise management. Capital Software continues to update EQ, keeping it consistent with the ever-evolving changes to the Tivoli Framework and core applications. This ensures your company will have the latest Tivoli capabilities integrated into their enterprise management solution without expending resources.

Once installed, Enterprise-Q provides a consistent Tivoli enterprise methodology, regardless of employee advancement and company reorganizations. As such, this product will provide insurance against employee turnover, mitigating its impact.

Supportability

Most Tivoli customers develop a disparate set of custom scripts in an attempt to automate some aspects of Tivoli enterprise management. In many cases, contractors with varying degrees of skills develop these scripts. Usually, these individuals leave the project shortly after the initial Tivoli implementation is complete. As a result, these customizations are often poorly documented and difficult to maintain.

Enterprise-Q is not a 'one-off' solution, but one that is being used continuously and consistently in many different TME implementations. It is a solution that replaces nearly all of your custom scripts, eliminating the cost of development and maintenance. Furthermore, it is a supported product with a proven track record that continues to be enhanced over time.

Automated Operations

Enterprise-Q provides a mechanism to automate distributions when target systems become available. As a result, Tivoli operations are greatly automated, relieving personnel from the tedious task of manually initiating and monitoring Tivoli operations. Moreover, automating distributions greatly improves the overall distribution success rate since activities are initiated soon after the Tivoli agent is known to be active.

Furthermore, automating labor-intensive enterprise management activities reduces costs. Fewer engineers are required and/or existing engineers have more time to dedicate to other pressing enterprise management activities

Enhanced Troubleshooting

With Enterprise-Q, employees no longer need to search Tivoli Notice Groups, software distribution log files, and the like, to ascertain the status of Tivoli-related activities. Enterprise-Q handles this automatically, integrating all the disparate reporting mechanisms found in the TME. Regardless of the operation, the results are presented in a uniform format.

This 'normalization' significantly enhances your ability to troubleshoot and monitor Tivoli activities and significantly flattens the Tivoli learning curve, transforming novice users into experts in a matter of days.

Improve 'Health' of the Enterprise

Enterprise-Q includes features that automatically optimize Tivoli-related activities. These mechanisms improve your success rate, effectively utilize your system resources (network, memory, CPU, etc.), and ensure the Tivoli infrastructure is not overwhelmed (which would lead to further degradation of service.) In short, Enterprise-Q tremendously improves the overall health of your Tivoli managed enterprise.

Reduce training and maintenance costs

The developers of Enterprise-Q are all Tivoli-certified engineers who have gained significant experience in the field. These experiences have been transferred into our product. As a result, much of our 'Tivoli knowledge' is built into the code, reducing the Tivoli knowledge required to effectively use Tivoli.

Because of this, Enterprise-Q customers find that lesser skilled employees/contractors are required to operate their Tivoli environment. And, less people are required as well, resulting in even greater savings.

Accelerate Tivoli Return on Investment

This consistent, reliable solution reduces training time and overall staff requirements by automating many of the tasks typically performed manually. Productivity is increased, the health of the enterprise is increased, and users are equipped with improved troubleshooting capabilities. All of which enables Enterprise-Q to accelerate your Tivoli ROI.

4 Success Stories

What specifics can be offered to support these statements of cost savings and immediate results? Below you will find statements of success stories and hard number from various Enterprise-Q customers on how this product has saved them time and money. The following companies are using enterprise-Q:

- Bank of America
- Chubb & Son Insurance
- Credit Suisse
- EDS for NMCI (Navy/Marine Corp Intranet)
- General American Life Insurance
- Kemper Insurance
- Mead Corporation
- NASD
- Nestle Corporation (USA and Global)
- NMIMC (Navy Medical Information Management Center)
- PEC Solutions for DEA (Drug Enforcement Administration)
- Unisys for ATF (Alcohol, Tobacco & Firearms)

Here's how Enterprise-Q has positively affected some of these organizations.

- Four months after purchasing and installing Enterprise-Q Kemper Insurance Companies, was able to inventory more than 7,100 endpoints in just six days. The same operation took three people more than three weeks to perform without Enterprise-Q. They increased productivity 750% with Enterprise-Q and cut their operational support staff & costs in half;
- NASD used Enterprise-Q™ with their Tivoli solution for desktop management and saved enough in the first year to cover the cost of EQ, and reduced desktop administration costs by over \$400,000 for software distribution alone;
- Chubb & Son Insurance had Tivoli Inventory sitting on the shelf for almost two years because they didn't have the manpower resources to get it rolled out. Using Enterprise-Q™, they were able to get Tivoli Inventory up and running quickly, and within two weeks, had a complete inventory of all 10,000 desktops;
- A US military healthcare organization has calculated that they will save almost \$1600 per desktop in labor costs by deploying Enterprise-Q™ and Tivoli throughout their organization;

5 Case Studies

Case Study I

National Association of Securities Dealers

NASD is a member of the Global Systems Management Council and an early adopter of Enterprise-Q™. They had been using Tivoli Software Distribution and Inventory. Their typical success rate for a Software Distribution was around 50%, because the user had his machine turned off, or some other problem within the network. So they had a real need for some kind of queuing mechanism that would automatically re-queue distributions. After evaluating EQ, they immediately saw the reduction in labor costs. Not only could they queue up Software Distributions, but also they could queue up other Tivoli Transactions, such as Inventory Scans, Profile Distributions, Tivoli Tasks, etc.

After the ILOVEYOU virus, NASD distributed a McAfee upgrade and updated virus definition file (total File Package of nearly 10MB) to 4500 desktops in 2.5 days with minimal manpower.

NASD has done some rough-order-of-magnitude estimates of cost savings using Tivoli and Enterprise-Q™. Following is a table that breaks down the differences in effort to do a software distribution; before Tivoli; after implementing Tivoli and after implementing EQ.

IS Labor Before Tivoli Implementation

<i>Software Distrib. Function</i>	<i>Time (min. per client)</i>	<i>Number (times per client/per yr.)</i>	<i>Total Mins. (per year for 5,000 clients)</i>
Major Business Applications	40	4	800,000
Office Applications	30	2.5	375,000
Patch/Minor Applications	15	20	1,500,000
<i>Total Labor Minutes:</i>			<i>2,675,000</i>
<i>Total Labor Hours:</i>			<i>44,583</i>

IS Labor After Tivoli Implementation

<i>Software Distrib. Function</i>	<i>Setup/Test (1 time for all clients)</i>	<i>Time (min. per client)</i>	<i>Number (times per client/per yr.)</i>	<i>Total Mins. (per year for 5,000 clients)</i>
Major Business Applications	3360	12	4	253,440
Office Applications	3360	9	2.5	120,900
Patch/Minor Applications	480	4	20	409,600
<i>Total Labor Minutes:</i>				<i>783,940</i>
<i>Total Labor Hours:</i>				<i>13,066</i>

IS Labor After Enterprise-Q™ Implementation

Software Distrib. Function	Setup/Test <i>(1 time for all clients)</i>	Time <i>(min. per client)</i>	Number <i>(times per client/per yr.)</i>	Total Mins. <i>(per year for 5,000 clients)</i>
Major Business Applications	3360	1.8	4	49,440
Office Applications	3360	1.5	2.5	27,150
Patch/Minor Applications	480	0.8	20	89,600
Total Labor Minutes:				166,190
Total Labor Hours:				2,770

Result Comparison

	Total Minutes	Total Hours
Labor Before Tivoli	2,675,000	44,583.33
Labor After Tivoli	783,940	13,066
Labor After Enterprise-Q	166,190	2,770

If we assume a fairly conservative burdened labor rate of \$40 per hour, then the savings in the first year alone for just Software Distribution has been \$411,840. $(13,066 - 2770 = 10296 \times \$40 = \$411,840)$

Case Study II

Global Insurance Company

Chubb & Sons Insurance in New Jersey has implemented Enterprise-Q™ as part of their Tivoli environment. Chubb has about 10,000 PC Managed Nodes spread across the USA. They have a hub/spoke architecture where profiles are created in the hub TMR (Enterprise) and EQ is installed in spoke TMRs (USA and Europe at this writing). They use EQ for inventory scans, software distribution, running tasks, installing products and patches, and more.

The first phase of their Tivoli rollout was to implement Software Distribution. They had also purchased Inventory as part of their initial purchase, but had such a difficult and costly time of getting Software Distribution up and running that they shelved Inventory (valued at several hundred thousand dollars) until they could afford the manpower and cost to roll it out as well...and that's where it sat for two years. After significant success with EQ in their Software Distribution effort, Chubb refocused on their Inventory initiative. Within two weeks of pulling Inventory off the shelf, Chubb had an inventory scan of all 10,000 desktops. And remember that these are PC Managed Nodes, which require the installation of scanner software before distributing an Inventory Profile.

During a recent outbreak of computer viruses, Chubb distributed updated virus definition files to all 10,000 desktops on four different occasions over the course of 3 weeks with minimal manpower.

Due to problems with SIS, Chubb utilizes EQ exclusively to install Tivoli products and patches. To upgrade all their managed nodes with a patch, they submit the job at night before leaving, then check the failure/success rate the next morning.

Chubb developed a web interface for their users to request software. Leveraging the EQ client/server architecture, they submit user requests to the EQ Server, where the implementers can automatically track and throttle these activities to mitigate the impact on their Tivoli infrastructure.

Taking advantage of simple EQ installation procedures, one of Chubb's engineers installed Enterprise-Q™ in Europe on his own with no assistance from Capital Software Corporation. Now Chubb has a consistent operating environment across "the pond" for queuing, tracking, and reporting enterprise-wide activities.

Case Study III

Military Health System

The Navy Medical Information Management Center (NMIMC) in partnership with Tri-Service Infrastructure Management Program Office (TIMPO) carries out Configuration Management and Capacity Planning services for the Military Health Systems (MHS). MHS faces the challenge of management of the increasing Information Technology (IT) complexities and resources with the steadily shrinking manpower and budgets. The solution to meeting this IT challenge depends on the efficient execution of a comprehensive enterprise management strategy utilizing a sophisticated suite of industry tools for automation and business processes applied to MHS IT.

To this end the MHS decided to have a prototype project implemented and built for four MHS sites that consisted of 3000 desktops. This prototype project, known as GEMM-Global Enterprise Management for MHS, was designed to eliminate current infrastructure and desktop management problems (i.e. high cost, inconsistent configurations, etc.).

The Navy Global Enterprise Management for MHS (GEMM) implementation addresses these needs. This Case Study identifies the return on investment (ROI) associated with the GEMM project and the use of the GEMM Enterprise Management Software (EMS) consisting primarily of Tivoli Enterprise software integrated with Enterprise-Q™.

The GEMM prototype, which consists of a sophisticated suite of industry tools and business processes, has been deployed to four MHS sites. GEMM provides the ability to track and control MHS IT infrastructure assets. Special emphasis is placed on an end-to-end integrated management approach for Desktop Configuration Management, and has been used to determine the cost effectiveness of utilizing an Enterprise Management tool throughout the MHS.

The prototype phase will determine the cost-effectiveness and increase customer support levels in systems management. This phase of the project put the tools and methodologies in place to automate inventory and analysis of software and hardware assets, install new applications, perform user administration, update device drivers, apply patches and track performance trends.

MHS has already started the process of rolling GEMM out to the next four sites, which include another 3000 desktops. Outlying phases call for up to 140,000 seats to be managed using this technology, a combination of tools primarily from Tivoli Systems and Capital Software Corporation.

The following table of results illustrates the actual labor savings achieved through GEMM to-date when normalized for the initial GEMM sites. The actual data shows that GEMM will provide the savings that were originally anticipated.

Category I Savings Function	Pre-GEMM IS Labor			Post-GEMM IS Labor			
	Minutes to Complete per Client by IS (minutes)	# times per year per client	Gross Total of IS Time spent per year for ALL clients (minutes)	One time setup/test for all clients (minutes)	Minutes to Complete per Client (minutes)	# times per year per client	Gross Total of IS Time spent per year for ALL clients (minutes)
SW Distribution							
Major Business App.	40	4	120000	3360	2.2	4	20040
Office Application	30	2.5	56250	3360	2.2	2.5	8400
Patch/Minor App.	15	20	225000	480	1	20	9600
Inventory							
Hardware	25	12	225000	15	1	12	9180
Software	35	12	315000	30	5	12	360
	Average Labor/task Before Tivoli (minutes)	# times per year total	Gross Total of IS Time spent per year for ALL clients (minutes)	One time User Administration DB population	Average Labor/task After Tivoli (minutes)	# times per year total	
User Administration							
Add user	20	188	3750	15	5	188	953
Delete user	15	188	2813		5	188	938
Modify/Change user	6.5	250	1625		3	250	750
Note:	Email account management - not in scope - but would provide significant labor savings and reduce help desk calls.						
Labor Only (Category I)			Per Client				
TOTAL Savings:			\$1,198,957	\$1,599			
Savings/100 clients:			\$159,861				

Enterprise-Q™ is the mainstay of the Military Health Services (MHS) enterprise management initiative. In fact, Enterprise-Q™ is a requirement in the Request for Proposal (RFP) for the second phase of this initiative (GEMM II).

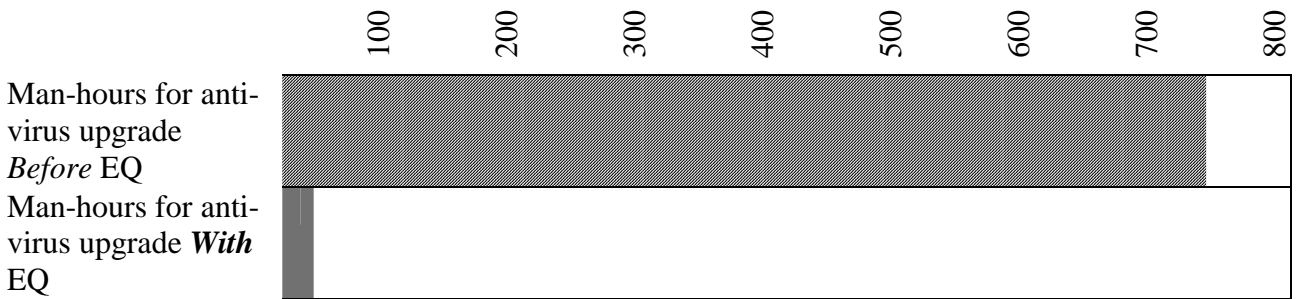
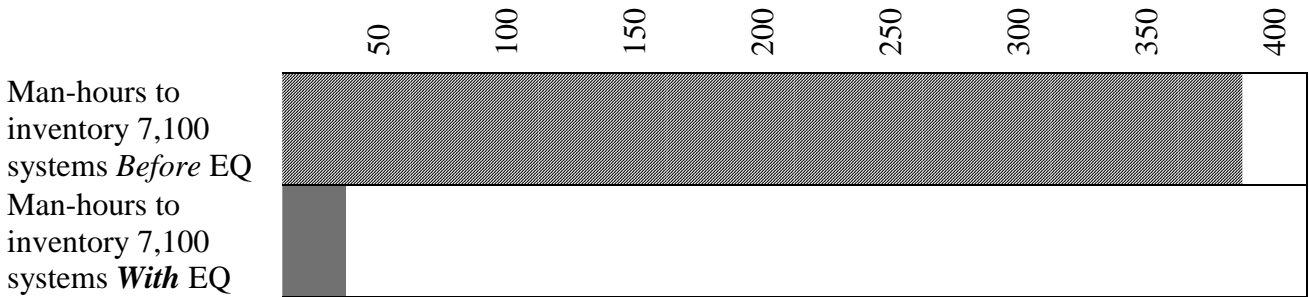
Relying on EQ rapid deployment capabilities, Capital Software Corporation and Tivoli Professional Services were able to implement a full-blown Tivoli architecture within 2 weeks at each of five (5) MHS locations. EQ rapid deployment capabilities include installing the agent, installing software, and taking an inventory of all desktops at each location, *automatically*. The Tivoli Managed Region (TMR) continued to expand even after leaving each location. As new desktops logged into the NT Domain, they were automatically captured into the Tivoli environment.

And, of course, Enterprise-Q™ was left at each site to provide a common operating environment for all GEMM sites. Since most sites do not have a Tivoli-trained support staff, EQ is crucial to the continued success of this project.

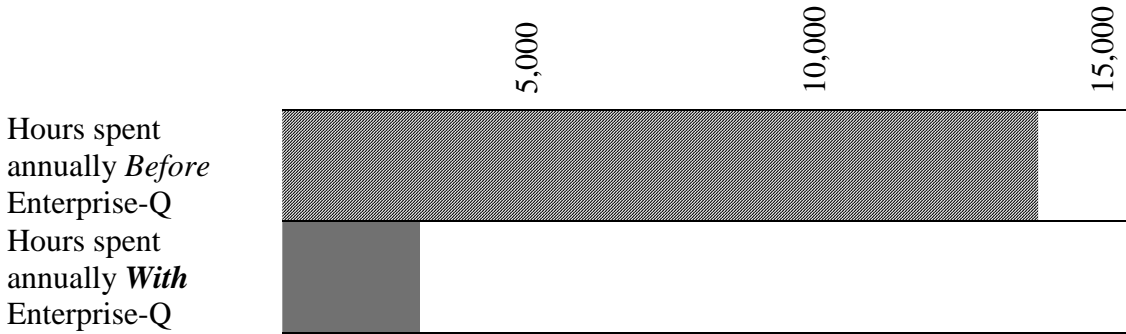
6 ROI Summary

The summary graphs below depict return on investment statistics as reported by several current Enterprise-Q customers:

Kemper Insurance - Network includes approximately 8,500 endpoints. Statistics represent time-saved by using Enterprise-Q for Inventory and Anti-virus upgrades.



NASD (National Association of Securities Dealers) - Statistics represent time-saved by using Enterprise-Q to perform software distributions to 5,000 clients several times a year.



Chubb & Son Insurance - Network includes 10,000 endpoints.

