The True Cost of Desktop Support:

Understanding the Critical Cost Drivers of Desktop Support

By Jeff Rumburg

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Introduction

Most companies believe that the cost of desktop support consists entirely of the personnel, technology, and facilities that comprise the desktop support organization. From a pure accounting perspective, this may be true. However, there are many other, less obvious costs (some would say hidden costs), that must be taken into account when determining the true cost of Desktop Support. These include the cost of defects, the "penalty cost" for not following a Single Point of Contact (SPOC) support model, and workload costs that are a direct result of the IT environment itself.

In this article, MetricNet (www.metricnet.com), a leading source of online benchmarks and a pioneer in Desktop Support, Service Desk, and Call Center benchmarking, uses benchmarking data to demonstrate that the true cost of Desktop Support is often much higher than expected.

Three Critical Cost Drivers

The true cost of desktop support must take into account three important cost drivers. These include:

1. The Direct Costs of the Desktop Support Organization;
2. The Cost of Defects; and
3. Workload Costs that are a Function of the IT Environment Itself.

Each of these costs is discussed in more detail below.

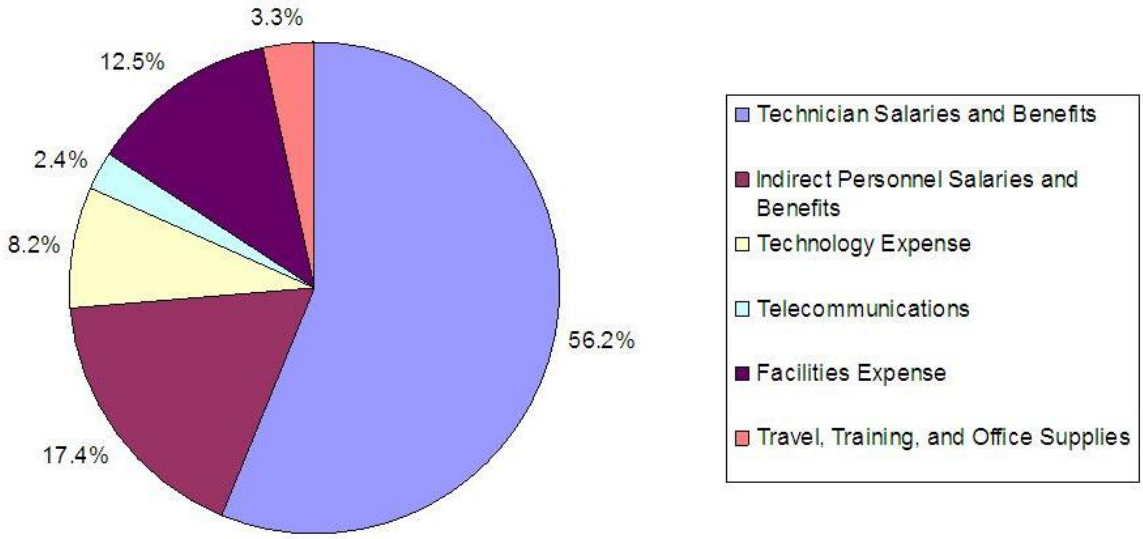
The Direct Cost of Desktop Support

The direct cost of desktop support includes the following components:

- Salaries and Benefits for Desktop Support Technicians
- Salaries and Benefits for Indirect Personnel (Team Leads, Supervisors, Workforce Schedulers, Dispatchers, QA/QC Personnel, Trainers, and Managers)
- Technology Expense (computers, software licensing fees, etc.)
- Telecom Expense
- Facilities Expense (office space, utilities, insurance, etc.)
- Travel, Training, and Office Supplies

As you might expect, the vast majority of direct costs for desktop support are personnel related. Figure 1 below shows the average breakdown of direct costs for North American desktop support organizations last year.

Figure 1: The Direct Cost of Desktop Support



The direct cost of desktop support gives us the pure "accounting cost" of the function. However, the *unit cost* of desktop support is a more useful metric, particularly when comparing or benchmarking the cost of desktop support against industry averages or other organizations. You may recall in MetricNet's last article, *The Eight Essential Metrics for Desktop Support*, we made a distinction between desktop support tickets, incidents, and service requests. Tickets are comprised of the sum of all incidents and service requests. Just as Cost per Contact gives us the unit cost for the level 1 service desk, Cost per Ticket, Cost per Incident and Cost per Service Request give us the unit costs for desktop support. The North American averages and ranges for these cost metrics last year are shown below, in Figure 2.

Figure 2: North American Desktop Support Costs

Metric Type	Desktop Support KPI's	North American Statistics		
		Average	Min	Max
Cost	Cost per Ticket	$62	$27	$490
	Cost per Incident	$48	$19	$312
	Cost per Service Request	$113	$41	$556

The ranges on these metrics (min to max) are enormous. Each of these cost metrics vary by more than an order of magnitude (10X) from min to max, and herein lie important clues about other factors driving the true cost of desktop support. Specifically, the cost

of defects and the workload drivers contribute significantly to this wide variation in unit costs. Let's take a closer look at each of these cost drivers.

The Cost of Defects

One of the eight essential metrics for desktop support is the % Resolved Level 1 Capable. This metric is a proxy for Total Cost of Ownership (TCO), and is a critical measure of overall End-User Support effectiveness. It is also a measure of defects since every ticket resolved at desktop support that could have been resolved at level 1 incurs substantial additional support costs.

At an average cost per ticket of $22 for the level 1 service desk, and an average cost per ticket of $62 for desktop support, each ticket that is escalated to desktop support that could have been resolved by the service desk generates $62 in wasted expense! The sad truth is that more than 20% of all tickets resolved by desktop support fall into this defect category: they could have been resolved at level 1!

Defects are not only a function of tickets that are escalated unnecessarily from the service desk. They are also the result of sloppy practices by desktop support organizations that do now follow a strict SPOC model for end-user support. We have all heard the terms "drive bys", "fly bys", and "snags" in reference to a desktop support technician being grabbed without warning, and asked to resolve a computer issue on the spot. The vast majority of these drive bys should be resolved remotely, by the service desk. But by giving in to the demands of the user, the desktop support technician is violating the SPOC support model, and incurring significant additional support costs for the organization. Strict enforcement of the SPOC model would have the desktop support technician tell the user to start by contacting the level 1 service desk to report any computer-related issues.

Figure 3 below shows just how severe this problem is, and how much these defects can cost an organization. Even at a best practices rate of 5% Resolved Level 1 Capable, an organization handling 5,000 desktop support tickets per month is incurring defect costs of $15,500 per month. That's $186,000 per year!

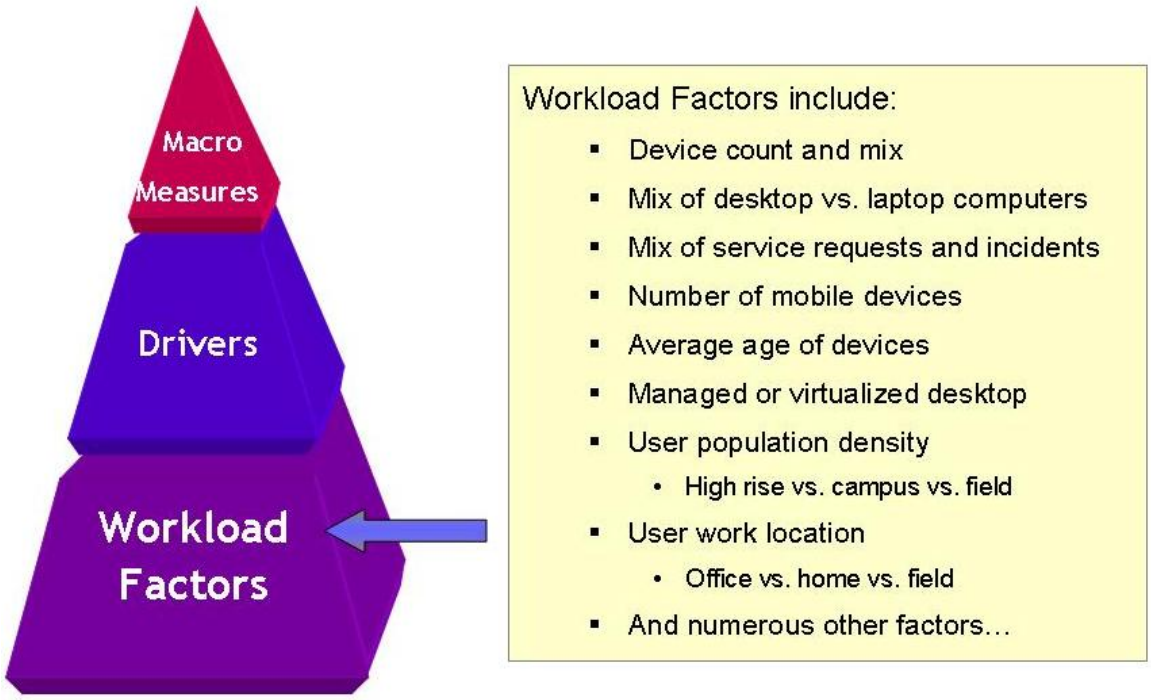
Figure 3: The Cost of Desktop Support Defects

Monthly Desktop Support Ticket Volume	% Resolved Level 1 Capable		
	5% (Best Practices)	22% (industry average)	61% (industry worst)
	Monthly Cost of Defects		
1,000	$3,100	$13,640	$37,820
5,000	$15,500	$68,200	$189,100
10,000	$31,000	$136,400	$378,200

Workload Drivers

The final factor that drives the true cost of desktop support is the workload. While this may seem obvious, what is not so obvious is how dramatically the workload can vary from one company to another, even for organizations that are supporting the same number of users!

Figure 4: Factors Affecting Desktop Support Workload



As Figure 4 demonstrates, the workload is driven by numerous factors outside the control of desktop support. This is part of the reason why the number of tickets, incidents, and service requests can vary so dramatically from one organization to another. Figure 5 below shows the wide variation in workload volume as measured by Tickets, Incidents, and Service Requests per Seat per Month.

Figure 5: Desktop Support Workload Statistics

Metric Type	Desktop Support KPI's	North American Statistics		
		Average	Min	Max
Workload	Tickets per Seat per Month	0.78	0.37	3.9
	Incidents per Seat per Month	0.60	0.21	3.4
	Service Requests per Seat per Month	0.18	0.09	1.1
	Incidents as a % of Total Ticket Volume	77%	53%	94%
	Ratio of Seats to Desktop Support Technicians	164.1	5.5	697.3

One important implication of the workload drivers is that desktop support organizations should not be staffed based upon the industry average ratio of users (or seats) to desktop support technicians. Depending upon the workload, the ratio of seats supported to desktop support technicians could be as high as 697 to 1 (one desktop support technician for every 697 seats), or it could be as low as 5.5 to 1 (one desktop support technician for every 5.5 seats). Staffing decisions should be based on the workload –

incident and service request volume – not on the industry average ratio of users (or seats) to technicians.

Although the workload drivers are outside the direct control of desktop support, some of them can, in fact, be controlled by other groups or managers within IT. Controllable workload factors include such things as the average age of the devices supported (related to the device refresh rate), and the degree of standardization and virtualization of the desktop. As a rule, organizations with a standardized desktop environment (e.g., limited number of standard images, lockdown safeguards, etc.) will generate far fewer tickets per user, and hence have lower desktop support costs. Likewise, a managed/virtualized desktop, has proven to lower the costs of desktop support, sometimes significantly. These controllable workload factors, and the cost savings that are possible in a well managed desktop environment, are sometimes enough to justify funding for projects such as desktop virtualization, or an enterprise-wide device refresh.

An example of a non-controllable workload factor would be the user population density. Desktop support technicians working in a high density user environment (e.g., a high-rise office building with lots of cubicles) are able to handle a larger volume of tickets per month than a technician supporting numerous smaller work environments that are spread across a vast geographical area (think desktop support for a retail bank with hundreds of branches across the country).

Likewise, the mix of incidents and service requests is largely non-controllable, but has a dramatic impact on work time per ticket, staffing, and hence cost. Let's assume for example that at Company ABC the Cost per Incident is $50, while the Cost per Service Request is $100. Additionally, 75% of ABC's tickets are incidents, while the remaining 25% of tickets are service requests. The Cost per Ticket can be calculated based upon a weighted average as follows: Cost per Ticket = ($50 X 75%) + ($100 X 25%) = $62.50.

Now let's take the example of Company XYZ who has the same Cost per Incident and Cost per Service Request as Company ABC, but whose mix of incidents and service requests is very different. Specifically, at XYZ only 40% of tickets are incidents, while the remaining 60% of tickets are service requests. The weighted average Cost per Ticket for XYZ can be calculated as follows: Cost per Ticket = ($50 X 40%) + ($100 X 60%) = $80.00. So although ABC and XYZ have the exact same Cost per Incident and Cost per Service Request, their unique mix of incidents and service requests yields a very different Cost per Ticket. If both organizations were to handle 5,000 tickets per month, Company XYZ would spend $87,500 more per month on desktop support than Company ABC, simply because a larger percentage of their tickets are service requests!

Controlling the Costs of Desktop Support

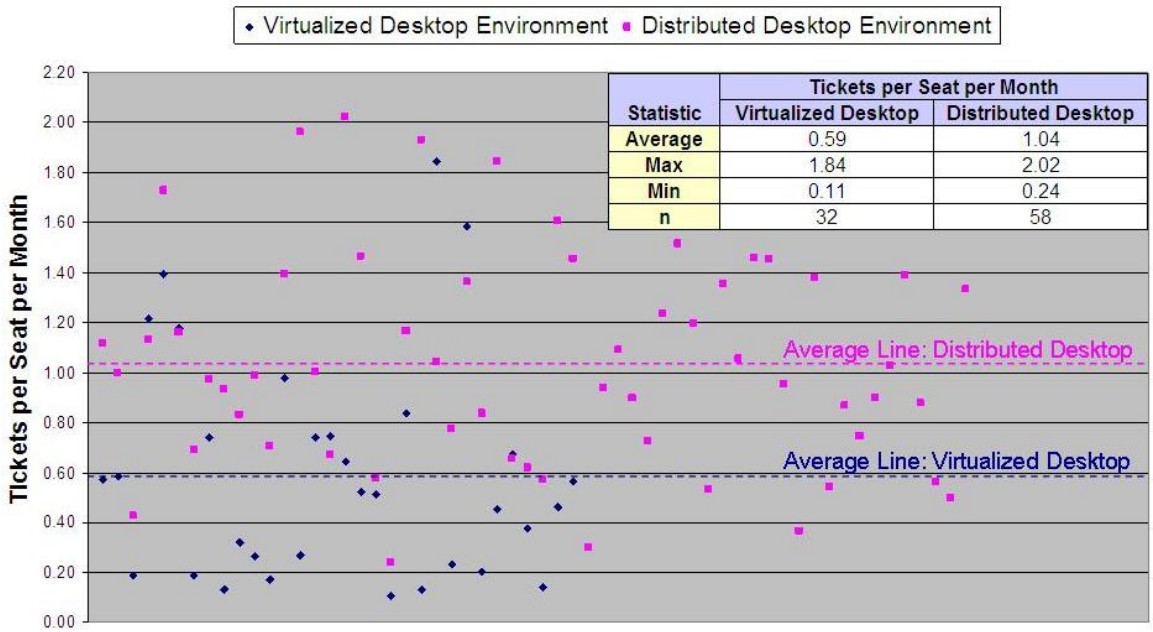
The obvious question now is: What can be done to control and minimize the cost of desktop support? The answer is twofold: 1) the desktop support organization can take steps to minimize the number of defects, and 2) IT management can take steps to minimize the number of tickets generated.

The primary KPI for tracking defects is the % Resolved Level 1 Capable. The first step in reducing defects is to simply track this metric. This can be done by creating a box on the trouble ticket that would be checked when a desktop support technician closes a ticket that could have been resolved by the service desk. Alternatively, some companies sample a number of tickets closed by desktop support each month, and estimate the defect rate by dividing the number of tickets resolved that are level 1 capable by the total number of tickets sampled. By tracking this metric, enforcing a strict SPOC model, and

eliminating drive by's, desktop support has the power to greatly reduce defects, the cost of desktop support, and indeed the Total Cost of Ownership for end-user support.

IT management is similarly obligated to implement actions that will reduce the number of desktop support tickets, and hence the total cost of desktop support. The primary strategies that accomplish these objectives include standardizing the desktop image, and virtualizing the desktop environment. Figure 6 below illustrates how the number of tickets, and hence the total cost of desktop support, is substantially lower in a virtualized desktop environment than in a traditional, distributed desktop environment

Figure 6: Ticket Volume in Virtualized vs. Traditional Desktop



Statistic	Tickets per Seat per Month	
	Virtualized Desktop	Distributed Desktop
Average	0.59	1.04
Max	1.84	2.02
Min	0.11	0.24
n	32	58

Conclusions

The true cost of desktop support is much greater than most companies realize. It goes well beyond the obvious costs of personnel, technology, and facilities. A full reckoning of desktop support costs must include the cost of defects – tickets resolved at desktop support that could have been resolved at level 1 – as well as costs that result from the IT environment itself. These environmental factors include the mix of incidents and service requests, the user population density, the number of mobile devices, and the standardization of the desktop.

The benefit of understanding the true cost of desktop support is that processes and practices can be adopted that will serve to contain, reduce, and minimize the cost of desktop support. These include tracking and minimizing desktop support defects, following a strict SPOC support model, and standardizing and virtualizing the desktop.

About the Author

The author of this article, Jeff Rumburg, is a Managing Partner at MetricNet, the premier provider of benchmarks, performance metrics, performance reports, and scorecards for service desks and desktop support worldwide.

Jeff Rumburg is a co-founder and Managing Partner at MetricNet, LLC. Jeff is responsible for global strategy, product development, and financial operations for the company. As a leading expert in benchmarking and re-engineering, Mr. Rumburg authored a best selling book on benchmarking, and has been retained as a benchmarking expert by such well-known companies as American Express, GM, Hewlett-Packard, and Bayer. Prior to co-founding MetricNet, Mr. Rumburg was president and founder of The Verity Group, an international management consulting firm specializing in IT benchmarking. While at Verity, Mr. Rumburg launched a number of syndicated benchmarking services that provided low cost benchmarks to more than 1,000 corporations worldwide.

Mr. Rumburg has also held a number of senior management positions at META Group, and Gartner, Inc. As a vice president at Gartner, Mr. Rumburg led a project team that reengineered Gartner's global benchmarking product suite. And as vice president at META Group, Mr. Rumburg's career was focused on business and product development for IT benchmarking.

Mr. Rumburg's education includes an M.B.A. from the Harvard Business School, an M.S. magna cum laude in Operations Research from Stanford University, and a B.S. magna cum laude in Mechanical Engineering. He is author of *A Hands-On Guide to Competitive Benchmarking: The Path to Continuous Quality and Productivity Improvement*, and has taught graduate-level engineering and business courses.

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About MetricNet

MetricNet is the leading source of on-line benchmarks, scorecards, and performance metrics for corporate managers worldwide. MetricNet benchmarks encompass virtually every industry and government sector, and address all major business areas including Information Technology, customer service, and technical support.

Our mission is to provide our clients with the benchmarks they need to run their businesses more effectively. MetricNet is committed to making the benchmarking process quick and easy for its customers. We have pioneered a number of innovative techniques to ensure that our clients receive fast, accurate benchmarks, with a minimum of time and effort.

MetricNet offers a number of competitive differentiators vs. other industry consulting firms. These include:

- **Credibility and Experience** – The principals of MetricNet have collectively completed more than 1,400 benchmarks since 1988. Each of them has extensively researched, written, and published on the topic of Service Desk Best Practices. Prior to joining MetricNet, the founders of the company held senior management positions at a number of companies including Gartner, META Group, MicroStrategy, the Stanford Research Institute, and the Verity Group.
- **Benchmarking Database** – MetricNet's Service Desk Benchmarking database is the most comprehensive in the industry. The database contains information on more than 30 Key Performance Indicators (KPI's), salary data for key service desk positions, technology profiles, and more than 70 best practices from hundreds of service desks worldwide.
- **Methodology Expertise** – Through decades of Service Desk consulting experience, MetricNet has perfected its methodology for Service Desk Benchmarking. MetricNet's approach to peer group selection, data normalization, gap analysis, and action planning yields consistently positive results for its service desk clients. One of MetricNet's co-founders, Jeff Rumburg, authored the first ever book on benchmarking in 1989, and MetricNet has authored and published numerous articles on the topic of Service Desk Benchmarking.
- **Objectivity** -- MetricNet's recommendations are independent and unbiased. We have no relationships with hardware manufacturers, software vendors or systems integrators, and we do not perform downstream hardware or software implementation work. As a result, our clients receive objective recommendations that are free from any vendor bias.

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