IT Key Metrics Data 2023: Infrastructure Measures — Network Analysis

Published 8 December 2022 - ID G00779730 - 6 min read

By Analyst(s): Eric Stegman, Jamie Guevara, Nick Michelogiannakis, Shaivya Kaushal

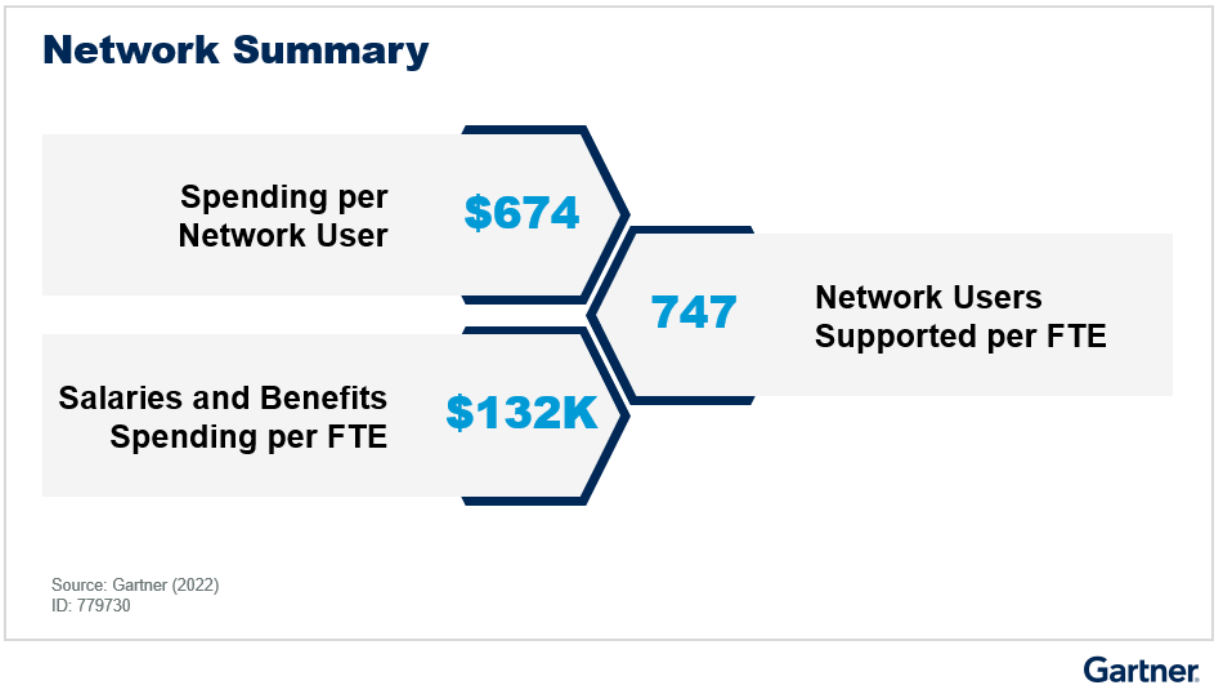
Initiatives: Technology Finance, Risk and Value Management; I&O Operations Management; I&O Organizational Strategy

The modernization of the digital workplace will bring along new spending requirements, and IT cost optimization will become increasingly important. IT leaders must quantify and communicate the benefits of collaboration, innovation and transformation being promised, as well as the steps they take to keep unnecessary spending in check. This research contains high-level Network spending efficiency and staff productivity benchmarks which should be used as part of a perennial cost and value optimization program. The published information includes data collected throughout 2022 from a global audience of CIOs and IT leaders.

Overview

The aim of this report is to help IT organizations assess their Network spending and staff efficiency at high level and determine suitability of the spending for their respective user base. These KPIs can be found in the summary figure below as well as throughout the report in more detail and context.

Figure 1: Network Summary



Key Findings

- Network cost efficiency (cost per user) has increased year over year. This is likely due to lower transport (bandwidth pricing) and the continued shift from traditional voice to IP telephony. This shift has picked up as work at home increased.
- The share of network costs related to personnel has increased over the past several years as transport costs have declined. The shift to work at home and the increased complexity of managing networks with cloud may have made these environments more difficult to manage.
- While the share of personnel costs increased, we believe that the sharp decrease in users per FTE seen in this year's report may be primarily sample based. That said it has come with an increase in contractor usage. This would make sense if short term needs were being met through staff augmentation.
- The share of software costs is likely due to an increase in adoption of Software Defined Networks.

Recommendations

- Evaluate your organization by leveraging the available published content or receive a report tailored to your organization by completing the IT Key Metrics Comparison Tool: Data Center & Network.
- Refer to the available supporting documentation such as the Network Framework Definitions to better understand the consensus model and the methodology behind the metrics.
- Follow the Practitioners Guide to best prepare your data for comparison.
- Schedule an inquiry with a Gartner Expert to address alignment questions or to review your results and gain valuable insight based on your submission.

Analysis

Clients improve business performance by benchmarking their spending, staff and best practices against Gartner's IT performance repository, the largest in the industry, drawing on over 5,000 IT benchmarks a year.

The produced metrics aim to help CIOs and IT Leaders evaluate the full life cycle management of all relevant Network assets, both tangible and otherwise. The scope of this report includes Local-Area Network (LAN), Wide-Area Network (WAN), Remote Access, Internet Connectivity and Intranet Connectivity.

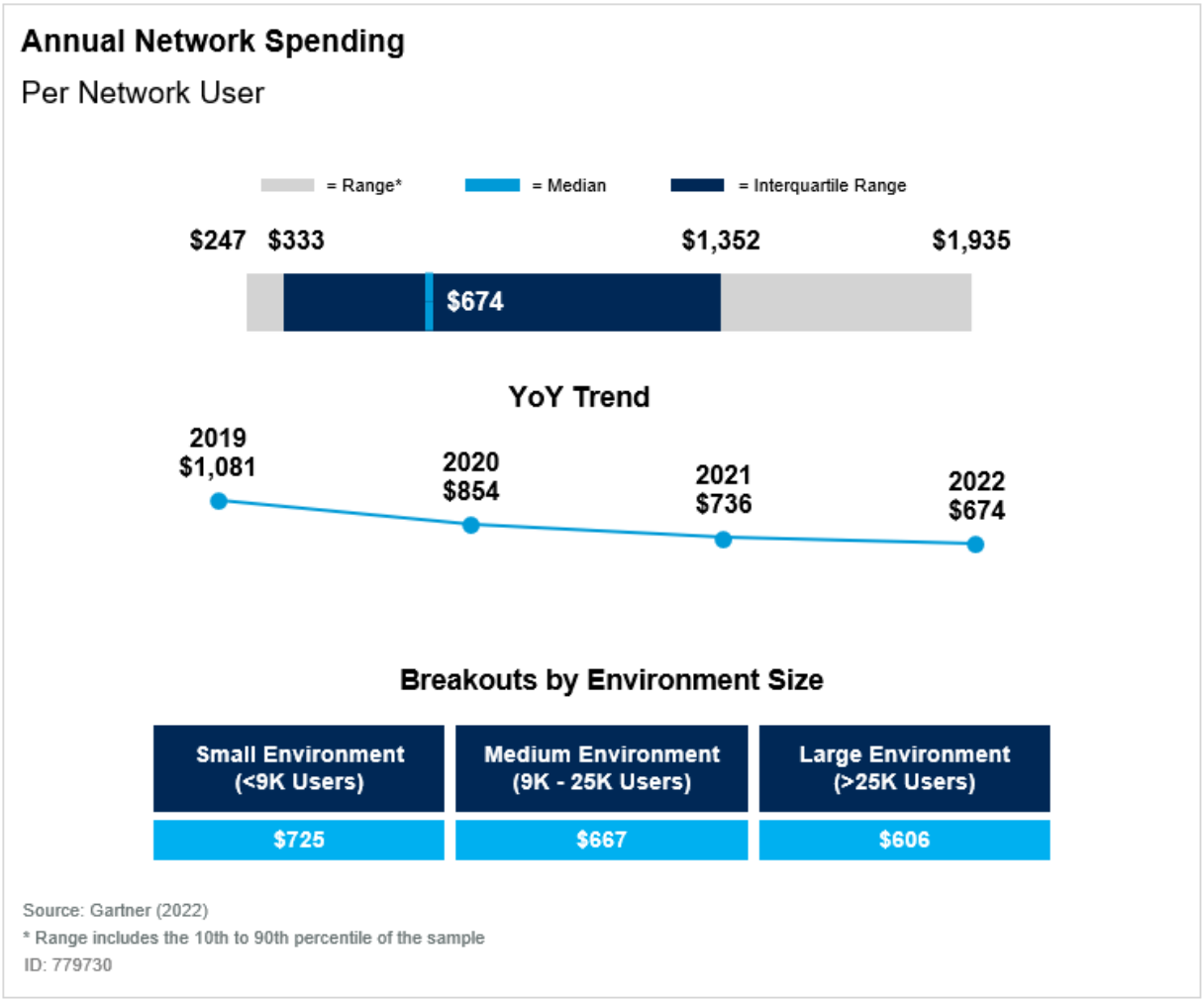
This report follows a top-down approach to the way the metrics are presented by starting with unit cost as the main spending efficiency indicator. We then strive to understand what is the effect of each asset to the unit cost by examining separately Personnel, Hardware, Software and External Services. The benefit of this method is that it reveals which elements of spending draw the most funds and identifies the key cost drivers for more actionable recommendations.

The metrics explored are database medians and do not account for individual variations of service quality, complexity or demand which may be justified by specific business needs.

Annual Network Spending per Network User

This metric is often used to evaluate the relative spending efficiency level of the overall Network environment. It should always be considered within the context of business requirements and scale,as well as productivity, service levels and the level of automation.

Figure 2: Annual Network Spending per Network User (USD)

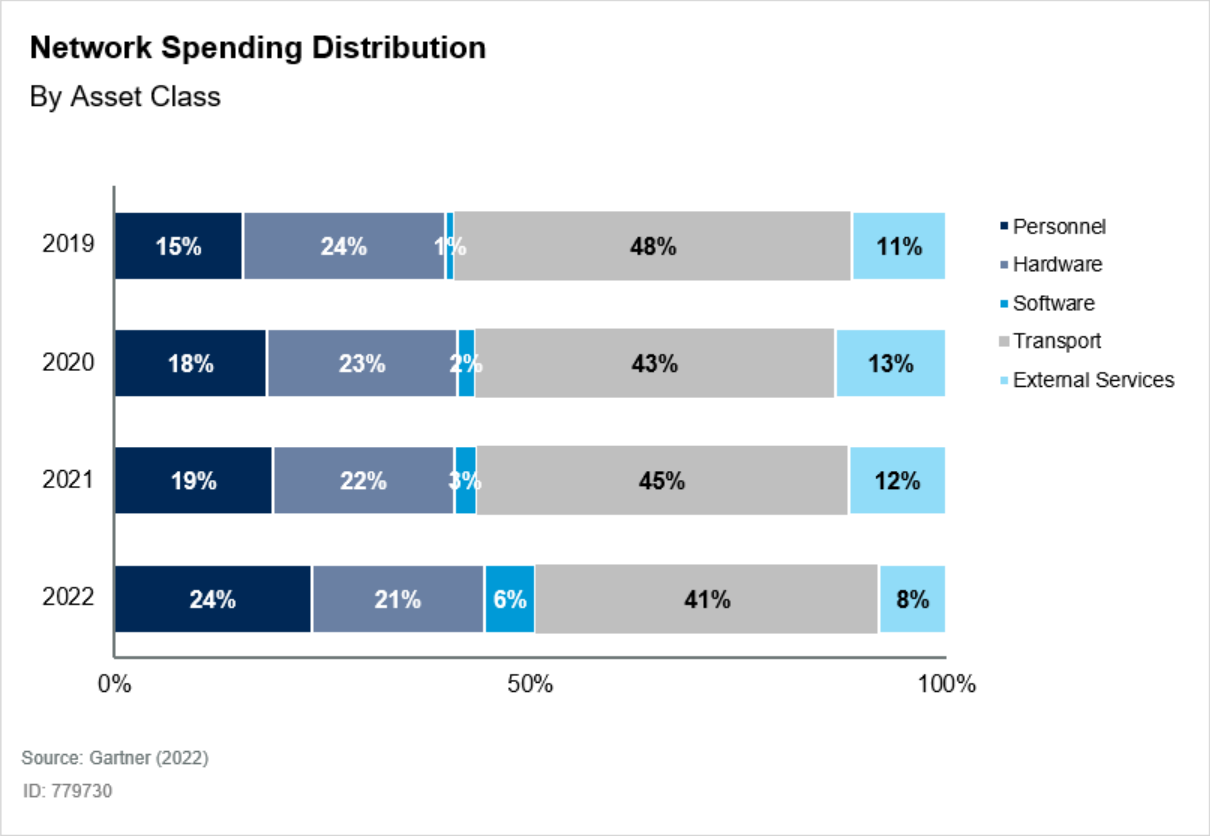


Network Spending Distribution

This metric provides an understanding of how Network spending is dispersed across the four Gartner consensus model asset classes with the addition of Network Transport. This distribution helps to outline personnel versus non-personnel related cost allocations. The degree in which an organization outsources can play a significant role in altering this distribution as personnel spending is typically the primary expense.

It is not uncommon to reduce spending in one asset only to have the follow-on effect of passing those costs off to another asset. By monitoring investments across all assets, such cost transfers within IT can be more visible.

Figure 3: Network Spending Distribution

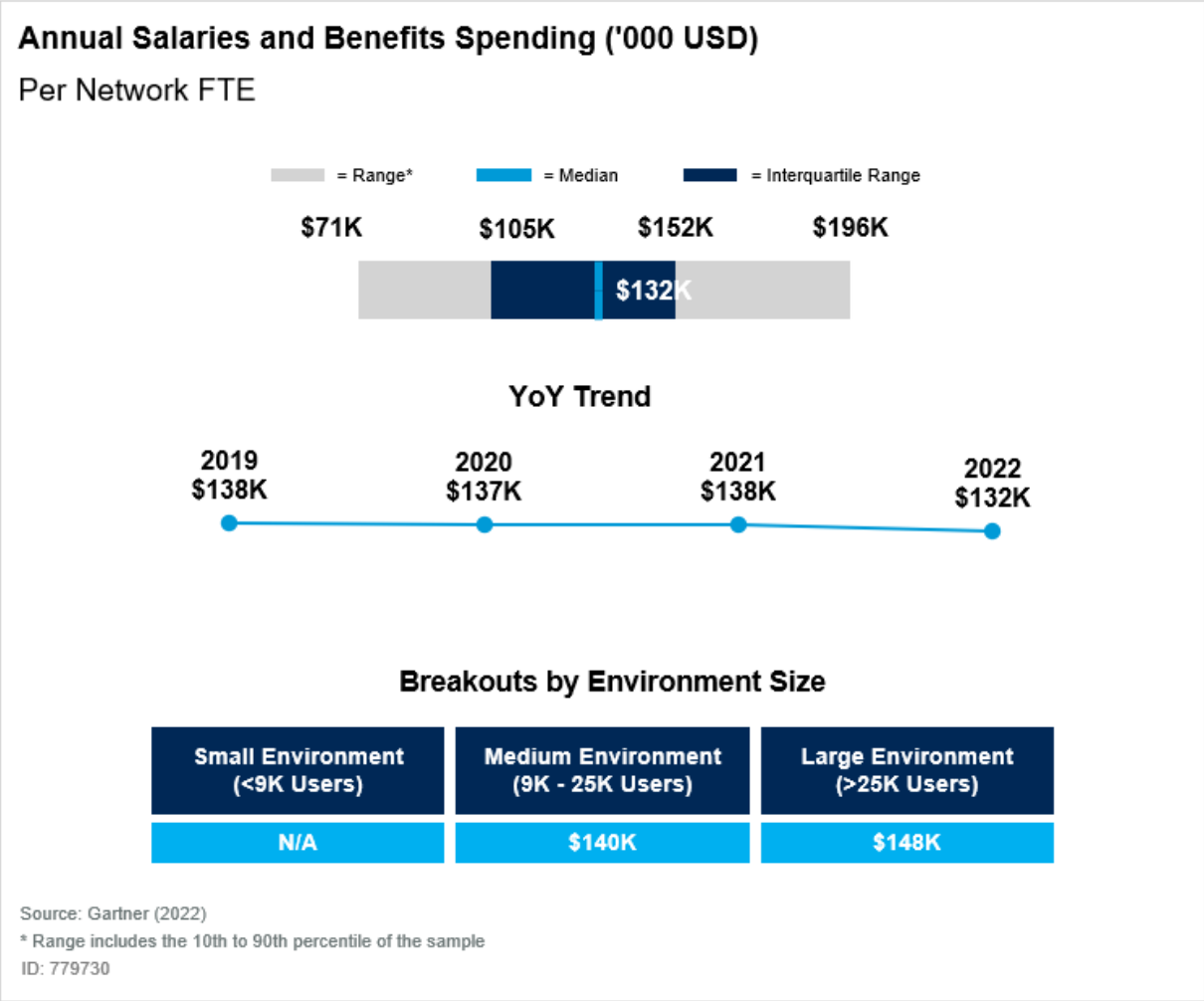


Annual Salaries and Benefits Spending per Network FTE

Compensation metric that provides the median annual spending on salaries and benefits for a Network FTE. This cost will vary depending on geographic location, experience, and expertise. This measure is best used within the context of the skill requirements for the various roles within the technology environment depending on the environment structure and level of complexity.

Questions to consider can be along the lines of: *What percentage of the environment FTEs are management versus engineering? What services/roles are outsourced to a third party? How does the use of contractors and/or offshore labor impact your costs?*

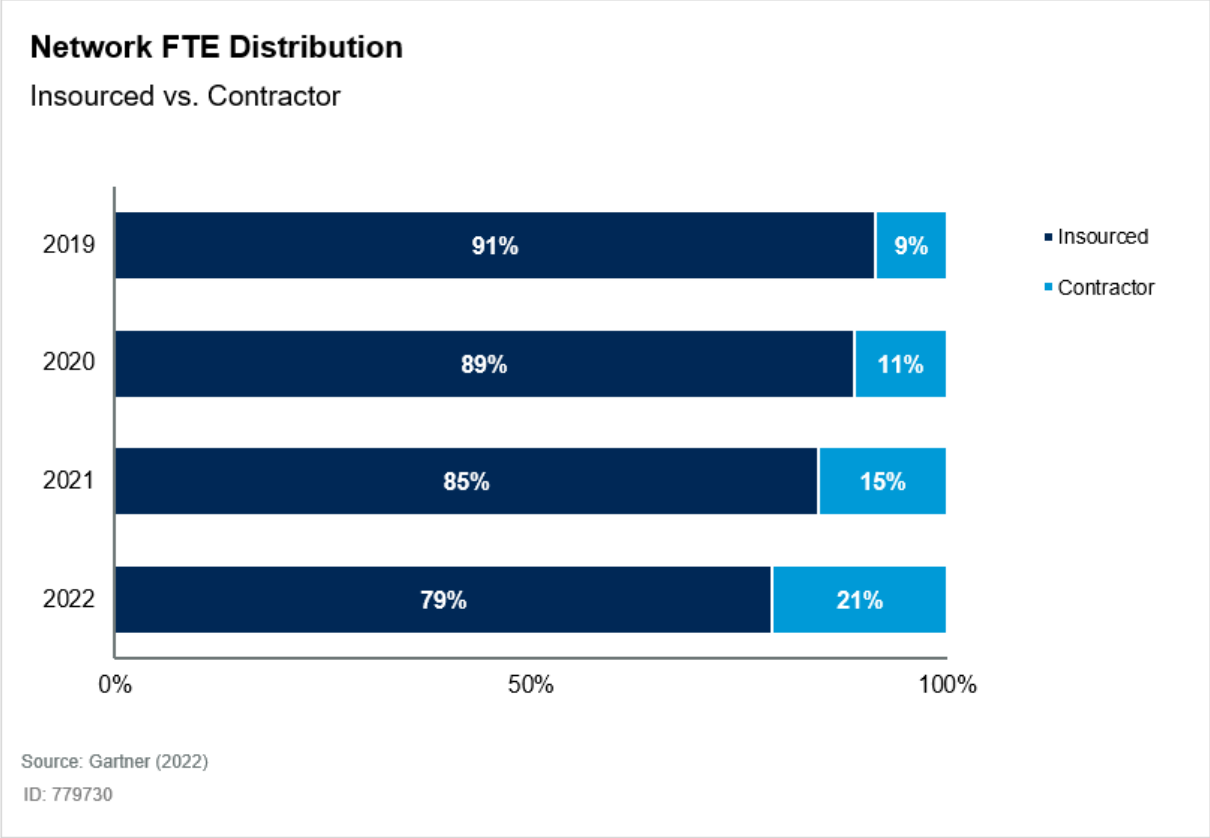
Figure 4: Salaries and Benefits Cost per Network FTE ('000 USD)



Network FTE Distribution: Insourced Versus Contractor

The distribution of Network headcount between insourced and contract FTEs can help provide a view of the Network staffing strategy. IT contract labor or contractor usage can be an effective approach to maintaining flexibility and agility when business conditions are changing. However, keeping contractors for extended periods can be more costly and limit process standardization if the associated knowledge, IP and processes are not well documented and captured within the enterprise.

Figure 5: Network FTEs: Insourced vs. Contractor

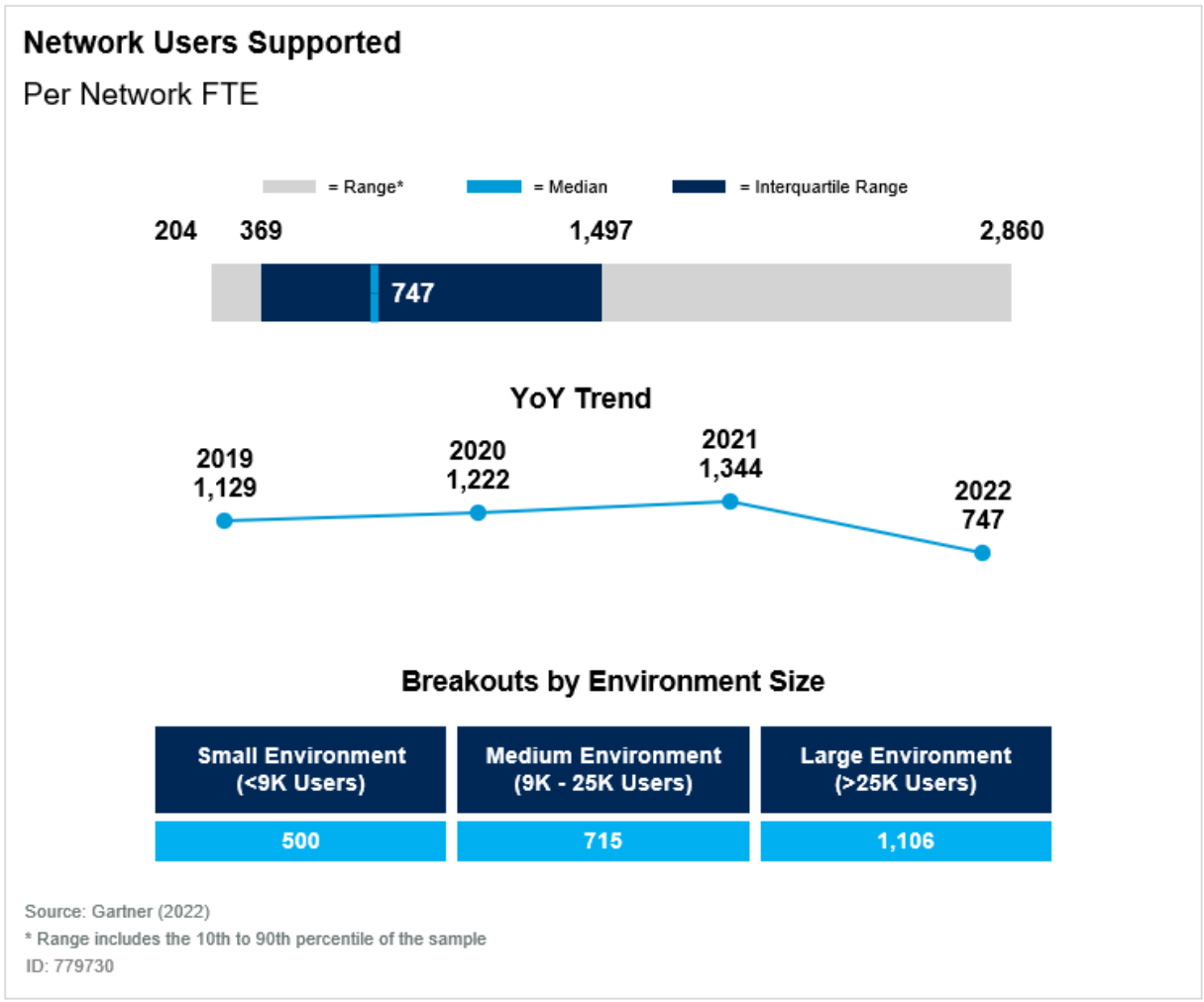


Network Users Supported per Network FTE

This is the core productivity metric and provides a look at dedicated FTE output levels. Understanding the productivity of your IT staff in terms of instances supported can be very helpful in establishing an efficient and effective workflow as well as ensuring your support staff is the "right size." Productivity levels can be further understood when examined in tandem with service level metrics such as the number of cores per instance, virtualization rate and availability percentage. It is important that it is not only viewed as a fixed objective but also with respect to the quality of service delivered and business requirements.

If your support staff is supporting more than the median of the published sample, you can consider the following questions: *Is this level of productivity sustainable? How will you adapt to required future growth or complexity? Are there any issues such as language, time differences, and non standard technology handled?*

Figure 6: Network Users Supported per Network FTE



Conclusion

A successful IT performance measurement program communicates metrics that are important to a target audience. Kick-Start Your IT Value Story With Metrics That Matter provides additional insight into overall performance management beyond spending and staff.

By quantifying spending relative to a defined framework, IT leaders can determine relevant cost drivers through understanding:

1. Top level efficiency and productivity metrics

2. Variances below the top level of spending

3. The relation of one metric to another

4. Environmental factors within the organization

Recommended by the Authors

Some documents may not be available as part of your current Gartner subscription.

"IT Key Metrics Data 2023: Infrastructure Measures — Executive Summary"

"Cost Optimization Lessons Learned Through a Crisis"

"Three Ways to Improve Network Automation"

"The Disappearing Data Center Opportunity for Infrastructure and Operations Leaders"

"IT Score for Infrastructure and Operations"

About This Research

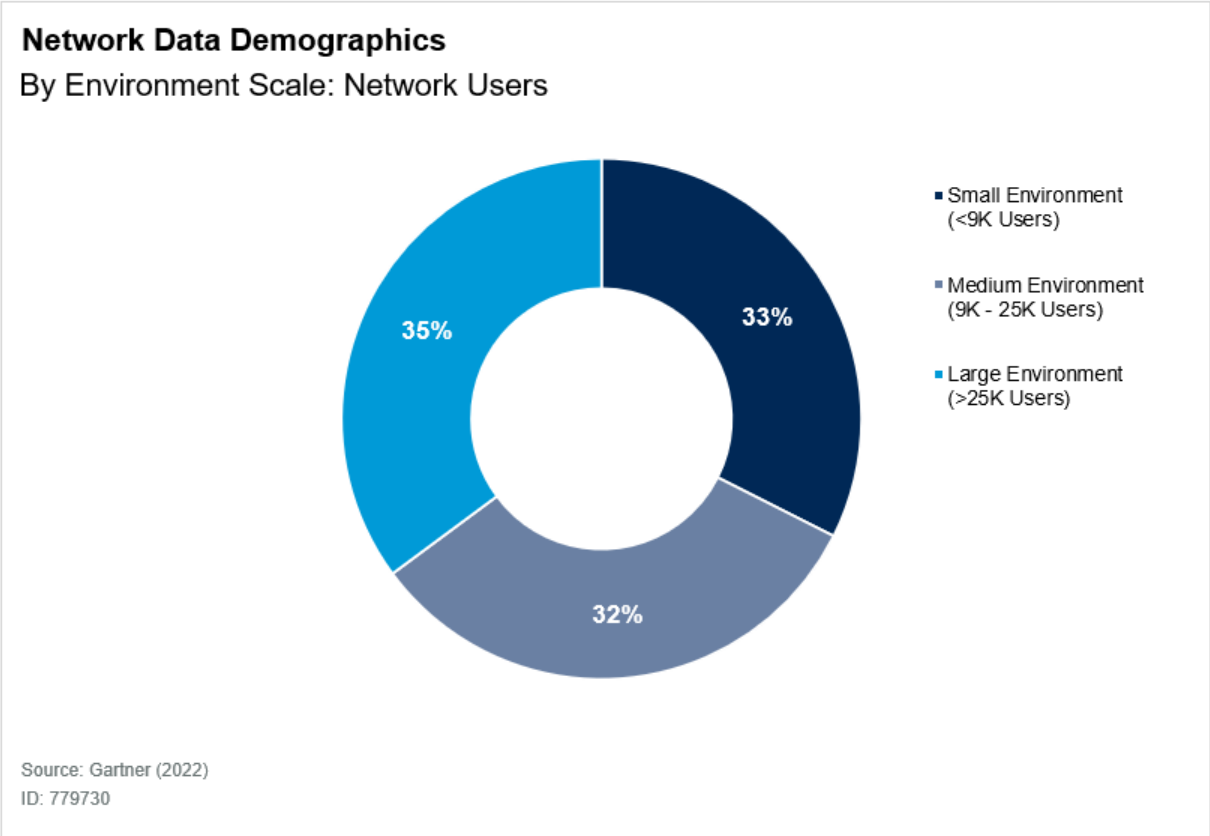
This research contains relevant database averages, medians and ranges from a subset of metrics and prescriptive engagements available through Gartner Benchmark Analytics consulting-based capabilities.

Calculations were made using worldwide observations.

Evidence

To offer some insight into the characteristics of the Network analysis data, the figure below outlines the distribution of the Network analysis data across the "Small," "Medium" and "Large" environments as defined in the legend.

Figure 7: Network Data Demographics: By Environment Size



Document Revision History

IT Key Metrics Data 2022: Infrastructure Measures — Network Analysis - 16 December 2021

IT Key Metrics Data 2021: Infrastructure Measures — Network Analysis - 18 December 2020