

# HOW TO OPTIMIZE INFRASTRUCTURE SUPPORT SERVICES

A look at the people and processes of best-in-class, cost-effective organizations

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# IN THIS WHITE PAPER, YOU'LL FIND LEADING INFORMATION ON:

Current state of infrastructure  
support services



Benchmarks



Best practices for lean,  
proactive, 24x7x365 support



Specifically, this paper will provide you a look at the results best-in-class operations generate, as well as ways you can get your organization there in a cost-effective manner.

## WHAT IS INFRASTRUCTURE SUPPORT SERVICES?

The Infrastructure, or NOC (Network Operations Center), Support Organization is one of the most valuable and important organizations within a company.

If a business is running smoothly, there is an effective Infrastructure Support Services team behind the scenes, often completely transparent to others within the business.

A modern solution has **24x7x365** support with automation, monitoring, and proactive operations.

**\$110,000** Average hourly cost to Enterprise of infrastructure outage.

**24.5x** How many more hours laggards spend in outages vs best-in-class.

# WHAT ARE THE CHALLENGES OF INFRASTRUCTURE SUPPORT TEAMS?

STAYING EFFECTIVE AND EFFICIENT IS AN ONGOING CHALLENGE FOR INFRASTRUCTURE SUPPORT TEAMS. OTHER CONCERNS INCLUDE:



Filling niche roles	Controlling cost and quality.	Managing multiple vendors
Retaining talent	Controlling business technology decisions	Understanding product and architectural roadmaps
Flexing staff to meet demand	Moving from individual application support to integrated	Transitioning from CAPEX to OPEX and cloud models
Maintaining cost-effective 24x7x365 support	Keeping pace with security vulnerabilities	Maintaining availability and seamless user experience

# WHAT IS THE COST OF POOR INFRASTRUCTURE SUPPORT PERFORMANCE?

WHEN THESE CHALLENGES ARE NOT PROPERLY ADDRESSED, THE IMPACTS CAN BE STAGGERING. THE FOLLOWING DATA SHOWS AVERAGE COST TO THE BUSINESS, COMPARING BEST-IN-CLASS TO AVERAGE AND LAGGARDS.

METRIC	BEST IN CLASS	INDUSTRY AVERAGE	LAGGARDS
Business interruption events per year	.9	3	.3.5
Time per interruption (hours)	1.3	4.7	8.4
Total disruption (hours)	1.2	14.1	29.4
Average cost per hour of disruption	\$60,000	\$110,000	\$98,000
TOTAL COST OF BUSINESS INTERRUPTION EVENTS	\$72,000	\$1,550,000	\$2,880,000

As this table shows, the difference in performance between best-in-class and laggard is very significant and has a real impact to the bottom line of a business, not to mention customer and employee satisfaction.

The question now becomes how do you move to best-in-class at the right cost?

## PEOPLE BEST PRACTICES FOR INFRASTRUCTURE SUPPORT SERVICES

Maximizing the value of your infrastructure support personnel is achieved by hiring the right competencies and using the right geographical locations. This helps you achieve 24x7x365 support with automation, monitoring, and proactive operations.

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*With one client, BETSOL client uses 3 headcount per shift to support 600+ applications, 150+ network devices, 450+ servers, and 10,000 simultaneous users*

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# THE TOP 3 COMPETENCIES OF INFRASTRUCTURE SUPPORT PERSONNEL:



Cross-platform application knowledge. The older application-specific model is too expensive.

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Engineers are not vendor-specific. They have core competencies and areas of proficiency.

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Deep understanding of architecture, virtualization, and inter-dependencies

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## HOW ARE THESE COMPETENCIES GAINED COST-EFFECTIVELY?

Infrastructure support is high skilled labor, but it can and should be achieved in low-cost geography, especially to ensure 24x7x365 in low stress manner.



High cost geography resources should only focus on strategic tasks: architecture, vision, and integration planning.

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Low cost geography resources should focus on all of infrastructure support tasks, including resolution, monitoring, upgrades, backups, migrations, and more.

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Partner with a vendor that specializes in strategy for numerous customers and can therefore bring best practices and further efficiencies.

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### Process Best Practices for Infrastructure Support Services

Modern processes drive a support team that displays these 3 characteristics. They are efficient, proactive, and focused on the end-customer experience.

***BETSOL took a customer from “on-call” to true 24x7x365 support at 50% of the cost and 3.75x improvement in end-customer sat.***

# EFFICIENT

Technology operates in a slim, virtualized, proactive environment. People are viewed in terms of number of headcount per base user. Processes are repeatable, searchable, dummy-proof, checklist based, & updated in organic, ongoing manners.



# PROACTIVE

Above all else, modern Infrastructure Support Organizations are aware of issues and address them before business impacts occur. This includes disciplines such as availability, security, patching, migrations, changes, and end-to-end test transactions.

- Make the process repeatable - Moving from physical hardware to virtualization and building templates is a step towards making the process repeatable and error free.
- Eliminate single points of failure - Consider a scenario where VPNs are aggregated to from a single cluster of Juniper Firewalls and client security policies are affected through FWSM contexts in Cisco 6500 core switches.
- Automate the process - The process of creating tickets automatically for errors, alarms, resolving them using rules engines and collecting diagnostics before routing to a human is a way of building a platform where the business can scale without costs shooting up.
- Lack of proactive maintenance results in unexpected outages and performance issues in the infrastructure driving the cost of business interruption significantly.
- Regular proactive maintenance cycles that cover various aspects such as software upgrades, security updates, backups, hardware upgrades and action plan based on performance data from production are needed to minimize business interruptions
- By coordinating proactive maintenance with stakeholders to identify ideal maintenance windows, downtime can be reduced to best-in-class.
- Replicate actual scale in test prior to production

# FOCUS ON END USER EXPERIENCE

It is no longer sufficient to talk about application uptime and other tech-centric metrics. Modern Infrastructure Support Organizations are able to monitor and track user experience, then trace issues with that experience back to root causes within the technology.

- When a user reports a problem, do you have the data to troubleshoot it effectively?
- In a scenario of supporting conferencing, best-in-class would automatically query users real time or immediately after each conference to ask about voice quality. If the user reports an issue, data captures and traces can be saved.
- Decisions and resolution are now made based on data and do not require the “burden of proof” to be on the end-user.
- Technicians spend time troubleshooting rather than discovery.
- End-to-end test transactions proactively measure user experience.





## CONCLUSION

This article covered the People and Process aspects of modern infrastructure support services. It has provided a look at the results best-in-class operations generate, and ways you can get there in a cost-effective manner.

## OPTIMIZING YOUR ORGANIZATION'S INFRASTRUCTURE SUPPORT

If you're ready to optimize your organization, let BETSOL accelerate your results. BETSOL is a leader in infrastructure support services, providing an end-to-end solution. BETSOL will provide class-leading results.

- **75% LOWER TURNOVER THAN INDUSTRY AVERAGE**
- **2X INDUSTRY AVERAGE CUSTOMER SATISFACTION**
- **24X7X365 NETWORK MONITORING AND NETWORK ENGINEERING**
- **24X7X365 CHAT, EMAIL, AND PHONE SUPPORT**
- **LARGE SCALE, PROVEN SUPPORT, WITH OVER 10,000 SIMULTANEOUS AGENTS SUPPORTED**
- **PROACTIVE ENGAGEMENTS, DRIVING TRUE SUPPORT TRANSFORMATION LEADING TO INCREASED CUSTOMER SATISFACTION AND REDUCED COST**