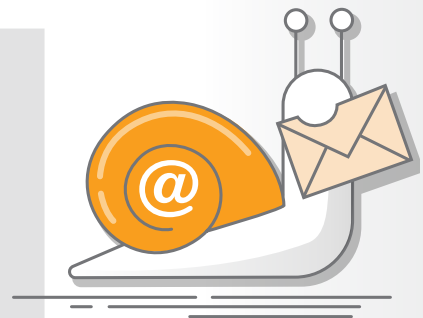# WHY IS THE E-MAIL **SLOW?**

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Help desk tickets from end-users complain sending and receiving email is slow with Microsoft® Outlook®

- Did the network admin get blamed for email being slow? Is it really a network issue or an application issue?
- How can you find out what is causing the problem, and identify the root cause for quick troubleshooting?

IS OUTLOOK REALLY SLOW?

Outlook Anywhere ⚠

WEBSITE FRONT END
✗ Synthetic transaction monitoring reports Outlook Anywhere response time is above threshold.
CONFIRMED: OUTLOOK IS SLOW.

IS IT THE NETWORK OR THE APPLICATION?

Before analyzing the Exchange Server environment, let's check if there is any network latency faced by the Outlook application.

Network Latency ✓
TCP Handshake

Application Latency ⚠
Time to First Byte

✓ Network latency for email traffic is within acceptable limits.
✗ There is high application latency reported for SMTP email traffic.
MUST BE THE EXCHANGE SERVER ENVIRONMENT.

DIAGNOSING EXCHANGE SERVER ENVIRONMENT

Exchange Server 2013 (Client Access Server) ✓

Exchange Server 2013 (Mailbox Server) ⚠

APPLICATION LAYER
✓ The Client Access Server (CAS) and all its services are running fine.
✗ But the Mailbox server is reporting a spike in RPC Requests. **LET'S FIND OUT WHY.**
(Also discovered 5 users approaching mailbox quota. Add to task list to fix later.)

Windows OS ✓

OPERATING SYSTEM LAYER
✓ No problem found in the Windows® operating system and associated processes.

Hyper-V Guest VM ⚠

VIRTUALIZATION LAYER
✗ High CPU Ready alert in the Hyper-V® guest virtual machine (VM).
ROOT CAUSE IDENTIFIED!

Physical Hyper-V Host on Dell Server ✓

💡 Remediation:
Right-size resource allocation for this VM. Decrease vCPU.
Right-size resource allocation for other VMs on this host. Move VMs off this host to load balance better.

Dell Storage Array ✓
LUN 1 ✓   LUN 2 ✓

STORAGE LAYER (SAN)
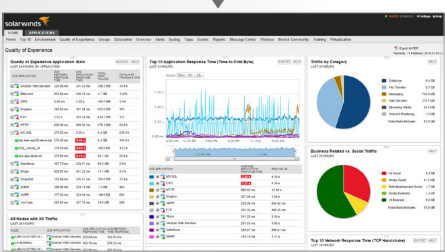✓ All storage objects are working at optimum performance. No issue with the LUNs.

HOW SOLARWINDS CAN HELP

Server & Application Monitor

Network & Application Latency Monitoring Using Traffic Analysis

| Web Performance Monitor	Server & Application Monitor	Virtualization Manager	Storage Resource Monitor
Synthetic Transaction Monitoring	Application & Server Monitoring	Virtualization Monitoring	Storage Monitoring

The Quality of Experience (QoE) dashboard in SolarWinds Server & Application Monitor analyzes network packets to provide immediate insight into network latency and application latency for specific application traffic.

QoE DASHBOARD ONLINE DEMO »
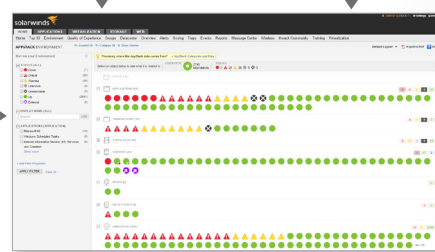
The AppStack™ dashboard provides a centralized view of your entire IT stack from the application to physical and virtual infrastructure, and all the way down to storage systems. AppStack combines monitoring insight from four IT management modules integrated on SolarWinds® Orion® platform.

APPSTACK DASHBOARD ONLINE DEMO »

KEY BENEFITS

QoE Dashboard

Eliminate finger-pointing between network and system teams and find out if it is the network or application issue.

AppStack Dashboard

Easily pinpoint the root cause of application issues across systems, virtual & storage infrastructures.

Visually understand dependencies & relationships between various elements of the application stack.

Diagnose and resolve critical application issues before end-users call up the help desk.

> *After deploying SolarWinds Server & Application Monitor, we are able to react to and resolve 'down' applications before the customer has time to call the service desk or open a trouble ticket.*

Don Ward,
IT Manager, TopBuild Corp.

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