



NetworkPhysics

TIRED OF BEING THE
USUAL SUSPECT?

6' Defend yourself against
"THE NETWORK
IS SLOW"

5'

4'6"

4'

3'6"

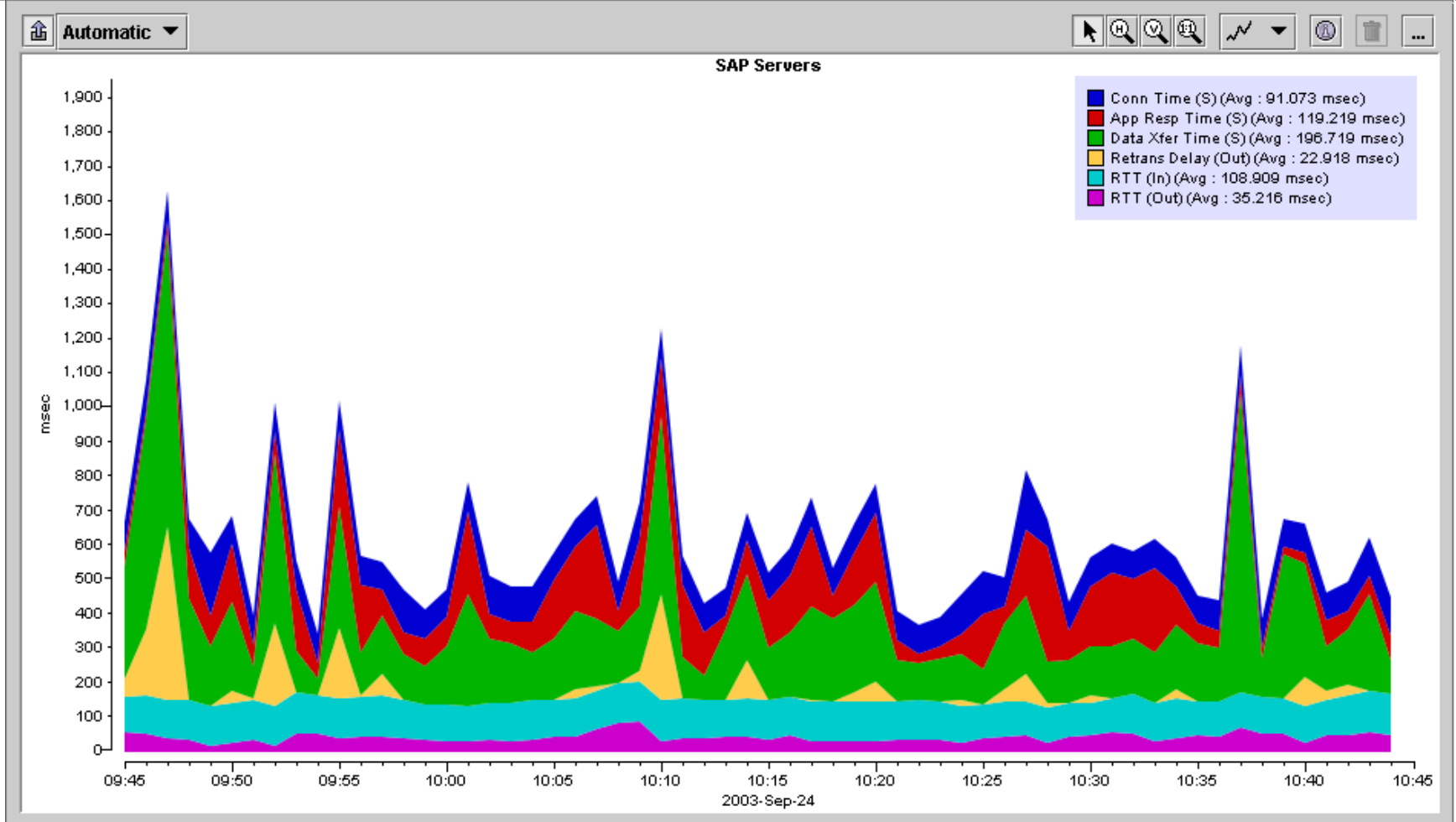


Network Application Management

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Five Key App Performance Bottlenecks

Application Performance Bottlenecks	Common Problems	Where to Start?
1. Network Bandwidth	<ul style="list-style-type: none"> ➤ Limited bandwidth ➤ Under-utilized pipes ➤ Bandwidth misuse ➤ Poor network performance 	<ul style="list-style-type: none"> ➤ Baseline who's using what ➤ By application, by user, by branch office
2. Application Behavior	<ul style="list-style-type: none"> ➤ Chattiness ➤ Poor design ➤ End-User Response time measurements 	<ul style="list-style-type: none"> ➤ Breakdown response time by server, network, application, packet loss ➤ Determine whether it's site or app specific: CIFS, MAPI, HTTP, Citrix, Oracle, etc.
3. Latency	<ul style="list-style-type: none"> ➤ Physical distance ➤ Queuing delay 	<ul style="list-style-type: none"> ➤ Measure RTT and Data Transfer Time per app, per site ➤ Separate latency issues from b/w issues
4. Server Load	<ul style="list-style-type: none"> ➤ Load balancing issues ➤ Server connection overload ➤ Application "Turns: 	<ul style="list-style-type: none"> ➤ Identify server-side, AFE anomalies ➤ Detect TCP, SSL connection load issues
5. Network Security	<ul style="list-style-type: none"> ➤ Worms ➤ Non-Business Applications 	<ul style="list-style-type: none"> ➤ Detect anomalous network behavior ➤ Pinpoint sources of rogue traffic down to infected or offending host



Response Time Composition Chart

St John Health Network FY05 Plan

-  Planned DS-3
-  Existing OptiMAN Ethernet Circuit
-  Planned OptiMAN Ethernet Circuit
-  Existing Circuit Solid (blue or Black)
-  Existing GB Ethernet Circuit
-  CSC/Ascension Circuit

