

## IMPLEMENTING YOUR SERVICE LEVEL AGREEMENTS

**IPCS is an independent outsource partner in professional testing services and monitoring of software applications and IT networks infrastructures.**

Our service level management (SLM) is a process for delivering services that consistently meet client requirements. An excellent framework for managing IT costs, SLM serves to help your organization guarantee, deliver, and improve specific application and systems response times for end users. Ultimately this leads to improved customer satisfaction.

Monitoring of the mission-critical applications and infrastructural components leads directly to establishing appropriate management goals. The end result will be better service and a better return on IT investments.

Whether you intend to outsource SLM to us, or plan to manage it in-house within your IT team, IPCS Group will help make the SLM implementation manageable. As a first step, we recommend to look at the top business goals within your organization and to prioritize them in order of importance. No matter what the business goals and priorities are, they should drive your SLM implementation.

Once the overall business goals are defined, we assist you to identify the exact services to monitor and manage. Focusing on IT services from the end user perspective is the basis for SLM. Your users usually bombard your IT department with complaints when they experience poor service or even perceive that service levels are not what they should be. As a result, taking the end user experience into consideration when crafting SLAs will help IT clearly communicate what can be achieved. User expectations will then be in line with the level of service that will be delivered.

After deciding what to monitor and manage, we recommend a baseline performance test of your mission-critical applications and infrastructural components to determine the frequency of monitoring. IT may look at a 99.8% and 99.9% application uptime, but, from the customer perspective, these percentages have little relevance to their daily interactions with the system. End users will remember the five times the application was unavailable for two-minute intervals and will want to know if this is in compliance with the SLA. If it is outside the agreement, then the end user will want to know what is being done to prevent the service breach from occurring again.

IPCS will also draw up the necessary plan to educate on appropriate problem escalation procedures within your organization. For example, what should an end user do if they experience a service outage? Should they call a help desk, open a trouble ticket, email a network administrator, or consult a Web portal for service outage notifications? Detailing the problem-resolution process will not only alleviate email storms when there is a problem, but will also help to resolve problems more quickly via effective communications. Good SLM solutions allow for automated escalation procedures, which in turn lead to the avoidance of service breaches. Identifying the problem before it affects the service should be the end goal.

### Mission-Critical Applications

Mission-critical applications support a business' most basic functions. When mission-critical applications (i.e. email, help desk applications, order entry systems, billing applications, sales management tools, and inventory management for manufacturers) go offline, the company essentially grinds to a halt. The importance of safeguarding these fundamental resources is self-explanatory.

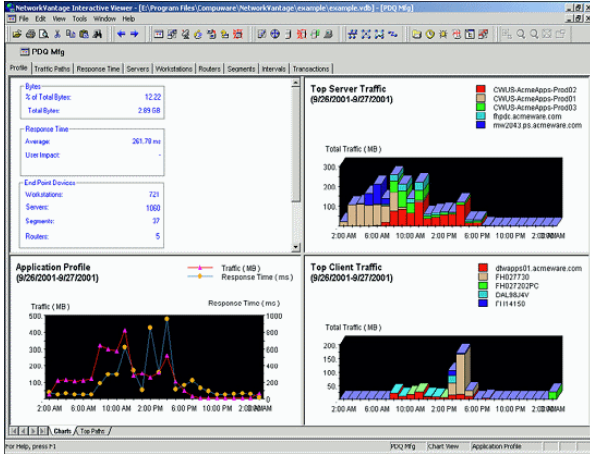
As mission-critical applications continue to expand, so does the need to appropriately provision network resources. IPCS evaluates network capacity before new applications and updates are rolled out and helps to establish realistic and attainable SLAs. Assessing WAN bandwidth, data link utilization and end user response times can prevent the under-provisioning of network resources, thus ensuring there will be enough capacity to adequately handle production changes. In addition to capacity planning, our SLM tools can also help prevent application outages in production by routing traffic to other available resources. The software can automatically notify appropriate personnel when system performance begins to slow so that corrective action can be taken before the end user even realizes there is a problem or there is a service violation.

### Mapping Infrastructure Components

Mapping critical business transactions across supporting infrastructure components is a necessary step in SLM. IPCS uses automated tools for discovering components and applications and provides topological insights into the path of transactions across the network itself, operating systems, web servers, applications servers, and database servers.

SLM solutions provide the detailed information on the network, application, and systems layers of the infrastructure for the time it takes between the end user typing in their request, until the resulting data appears on their computer screen.

# Optimizing IT Performance



Compuware's NetworkVantage can display an application profile for every discovered application.

Network and systems performance and availability data provide important insight into the infrastructure. The application profile includes critical detail about performance of the application, which clients and servers are the biggest users of the application, and when it consumes the most network resources. Each data point on the profile chart is a hot button where users can drill down into the details for a specific time interval.

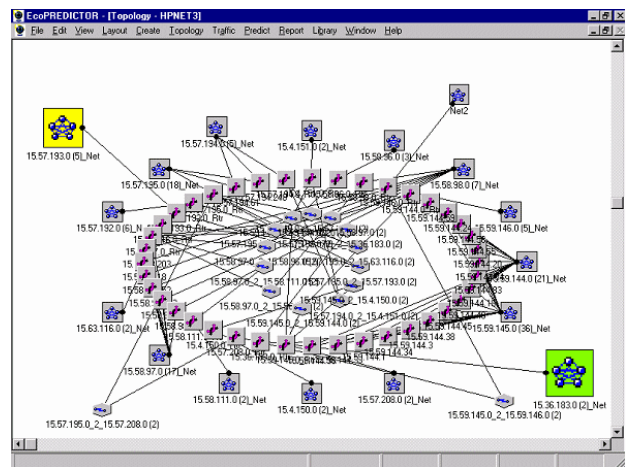
## Transaction Monitoring and Management

Managing transactions is monitoring their behaviour. IPCS will assist your IT team and business managers in determining the appropriate types of transactions to monitor and the importance of each. eCommerce and other web-based external customer facing systems will typically need to be available at least 99%

or more of the time. Most web-based systems tend to be highly distributed and thus more difficult to track transactions.

End-to-end transaction monitoring is ideal but often unrealistic and too costly for in terms of internal people and resources making more sense to be outsourced. The combined result of mapping the infrastructure and base-lining the performance of the infrastructure components will provide inputs for determining what to monitor and how. Performance and availability are usually measured for each of the infrastructure components including network links, web servers, application servers, and databases.

Establishing a baseline performance threshold for specific transaction components such as specific response times and availability percentages that must be met and are clearly detailed within the SLA. When thresholds are exceeded, an alerting process should follow.



## Benefits

A defined systematic procedure for troubleshooting the infrastructure is crucial for quick problem resolution. Pinpointing whether or not the issue is in the network, a database server, or application server can mean the difference between restoring performance levels or experiencing a cascading avalanche of outages across components. Slow application performance may be a symptom of a slow operating system. Slow web queries may be the result of huge database clock sizes or a buffer cache overflow. Easy access to performance metrics for the entire IT infrastructure from one centralized console is the best way to quickly assess the overall health of the system.

Enterprise Dashboard				Branch Locations					
Business Applications	Client Availability	Client Performance	Network Alerts	Server Alerts	Client Availability	Client Performance	Network Alerts	Server Alerts	
Client Applications	100%	100%	Green	Green	Boston	97%	92%	Green	Green
CRM Package	100%	89%	Green	Green	Chicago	89%	87%	Red	Red
Intranet	85%	100%	Green	Red	Denver	93%	82%	Green	Green
Microsoft Exchange	99%	99%	Green	Green	Detroit	95%	85%	Green	Green
Oracle Applications	100%	99%	Green	Green	Toronto	95%	91%	Green	Green
Peoplesoft	100%	94%	Green	Green					
Sales Tracking	100%	97%	Green	Green					
SAP	99%	84%	Green	Green					
Sibel	100%	96%	Green	Green					

Vantage to monitor application service from the end-user perspective rather than just monitoring infrastructure components. Vantage unites business-oriented views with deep performance analytics to identify and resolve service degradations before they impact the business and can help companies meet business objectives while maximizing the return on technology investments.

Whether outsourced or in-house managed, SLM defines a set of processes and products that focus companies on improving application service delivery based on the needs of the business. IT organizations can employ service management solutions like Compuware

## IPCS Group

### IPCS Ltd.

• 13/F, Silver Fortune Plaza  
1 Wellington Street, Central, Hong Kong  
Tel: (852) 2525 7718 Fax: (852) 2140 6833

### IPCS Group, Inc.

• Unit 12C, 12/F, Goldland Tower, 10, Eisenhower St.,  
Greenhills, San Juan, 1503 Metro Manila, Philippines  
Tel: (63 2) 27235771, 3961061 Fax: (63 2) 6473499

### BICS Sdn. Bhd.

• 8.01, Level 8, AMODA Building,  
22, Jalan Imbi, 55100 Kuala Lumpur, Malaysia  
Tel.: 60 3 2144 7000 Fax.: 60 3 2144 8959

