SLA Management

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Agenda

- NaviSite Profile
- SLA Definition, Drivers, Hierarchy
- What to look for in an SLA
- SLA Management
- What to avoid in an SLA
- Types of SLAs being offered today
- SLA Evolution
- Lessons Learned/Summary
NaviSite Profile

- Managed Hosting Provider -- 5 years experience
- Streaming Media content management & delivery
- 4 Managed Services Data Centers in U.S., with International expansion underway
- Over 350 customers … 3500 managed servers
- Q2 FY 2001 revenue: $27.7M
- Strategic Investors: CMGI, Microsoft, Dell

Customers: Enterprises, ASPs, ISVs and .coms with mission critical Internet/Intranet applications
What Is an SLA?

The service level agreement (SLA) is a legal contract between a service provider and a customer that specifies, in measurable terms, what service level guarantees the service provider will furnish, and it defines the consequences (penalties) if the service provider fails to deliver on these guarantees per the specified conditions.
What’s all the fuss about SLA’s?

- Site performance and availability has a direct effect on customer satisfaction and retention
- Online businesses want their service providers to have a measurable stake in their risk
- Companies expect their service providers to have expertise that exceed their own
- 80% of the outsourcing agreements in 2002 will include SLA’s *(Gartner)*
41% indicated that SLAs will be required the next time they choose a service provider.

42% said that obtaining real-time, online SLA reports would be extremely valuable.

42% said that receiving automatic service credits (proactive credit policy) for SLA non-compliance would be extremely valuable.

148 US enterprise organizations
Basic SLA Drivers

- Hosting boom — increased outsourcing of mission-critical applications
- Service Providers — the stronger the SLA, the stronger the Service Provider
- Customers — Cost of downtime & security/assurance
## Cost of Downtime

Cost of downtime is the primary driver for SLAs.

### Lost Revenue Associated With Application Outages

<table>
<thead>
<tr>
<th>Application</th>
<th>Cost Per Min</th>
</tr>
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<tbody>
<tr>
<td>ERP</td>
<td>$13,000</td>
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<tr>
<td>Supply chain mgmt</td>
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<td>Electronic commerce</td>
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<td>Universal phone services</td>
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<tr>
<td>POS/EFT</td>
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<td>Messaging</td>
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IDC
What to Look for in an SLA

Components, Terms, Management
Components of an SLA

- Commitment to Availability
- Commitment to Monitoring & Notification
- Commitment to Accountability
Components of an SLA

- **Commitment to Availability**
  - Application must be available for a specified percentage of the business period

  **The 9’s Game:**
  *There are 2,592,000 seconds in an average month*
  - 99.00% availability means the customer is out of service for 25,920 seconds (7.2 hours)
  - 99.90% availability means the customer is out of service for 2,592 seconds (43.2 minutes)
  - 99.99% availability means the customer is out of service for 259.2 seconds (4.32 minutes)
  - 99.999% availability means the customer is out of service for 25.92 seconds
Components of an SLA

- Commitment to Monitoring & Notification
  - Customer must be notified when the application is not available
  - This proves that the Service Provider is monitoring the application

**Guidelines:**

- *The Service Provider should be the first to know if the application is not available – they control the resources -- or else the customer will lose confidence in the Service Provider’s ability to perform*
- *The Service Provider should commit in the SLA to notifying the customer of application outages*
Components of an SLA

- Commitment to Accountability
  - Customer must be able to receive compensation when the application is not available

Sharing the pain:
- The Service Provider will be judged on their willingness to “share the pain” when the application is not available
- Not billing because the application was not available is also not sharing the pain
- Prorated credits is also not sharing the pain
Terms of an SLA

- **Deliverables**
  - Identify and describe all the services supplied by the Service Provider
  - Define clear roles & responsibilities; Service Provider’s & Customer’s

- **Level of Service**
  - Defines the T&Cs which must be met by the Service Provider in the provisioning and delivery of these services
  - Defines the Service Level Warranty on agreed-upon service metrics which must be measured & met by the Service Provider
Terms of an SLA

- **Credits**
  - Defines the consequences if the organization fails to deliver the specified services under the specified conditions

- **Measurement & Reporting**
  - Identify the measurement & reporting methodology to be used in tracking Service Level Warranty compliance (daily, monthly, annually,..)
SLA Management

- **Tracking SLA Compliance**
  - Extensive Monitoring & Reporting Capabilities
  - Round the clock web-based reports

- **Tracking Change/Modifications**
  - Changes/Modifications to site architecture or application must be signed-off and tracked by the Service Provider as it may impact SLA metrics

- **Service Provider should be the Single Point of Accountability for SLA Management**
SLA Management Components

Service Level Administration
- 24x7 Help Desk
- Change Management
- Problem Management
- Root Cause Analysis
- Billing

SLA Management System

Service Level Compliance
- Web-based Reports

Service Level Monitoring
- Network/Server/App Monitoring
- SLA Metric Measurement
SLAs Ensure True Partnership

- Shared Risk / Shared Pain
- Ensures Customer confidence – Leads to additional revenue
- Ensures peace of mind for Customers, Investors and Stockholders
What to Avoid in an SLA
"SLA's are of little use unless the performance goals they document are achievable and the penalties for failing to meet the goals are enforced"  IDC
What Should you Avoid in an SLA

- Non-Proactive Credit Policy
- SLAs that are UN-achievable (beware of the 100% availability SLAs)
- Vague and UN-measurable SLAs (beware of the end-to-end, and network latency/packet loss SLAs)
- SLA Penalties that do not kick-in at the precise moment of agreed upon SLA metric violation
- SLAs that do not hold service providers accountable for their outages (if a customer hurts, so should the service provider)
Types of SLAs being offered Today
Primary Types of SLAs Offered Today

- **Performance SLAs (Network Latency & Packet Loss)**
  - Primarily used for Marketing & PR
  - Guarantee availability of network components within the Service Provider’s control *only*
    - Does not include last mile or other Service Provider’s network components

- **Help Desk SLAs (Outage Notification & Response Time)**
  - Guarantee “Customer Notification” of server/application outages & “Time to Respond” to outages

- **Availability SLAs (Network, Facility, Server, Application)**
  - Guarantee uptime within confines of data center
SLA (examples)

**Application Support:** Mean time to repair: one to two hours for priority 1 outages, four to six hours for priority 2 outages; and one to two days for priority 3 outages.

**Help Desk:** Mean Time to Notify: 15 minutes, Mean time to Respond: 30 minutes.

**Site Availability:** 99.9% site availability.

**Network Performance:** less than 1% packet loss, less than 70 ms domestic latency and less than 100 ms international latency.

**System Availability:** 99.5% server availability, and 70% CPU utilization.
SLA Evolution

- Bigger Promises
  - More “nines”
  - Tougher penalties

- Greater breadth
  - End-to-end coverage
  - User Experience metrics

- More detail
  - Network complexity
  - Customer responsibilities

- Someday: Application-Performance Guarantees
Summary/Lessons Learned

- Service Level Agreements are no longer optional
- Proper Monitoring & Management Infrastructure must be built-in to provide SLAs
- SLAs protect both; the customer and the service provider
- Both sides need to understand their obligations
  - Implicit terms need to become explicit
  - Penalties in SLAs are necessary evils! They drive proper behavior

Once you are ready to “deliver” SLAs you are in good shape to launch new offerings quickly!
Questions & Answers

Please visit us at www.navisite.com