



How Good Is Good Enough?

A Look at Service Level Agreements, Objectives, and Guarantees in Internet Infrastructure

Overview: This report aims to examine the current trends in Service Level Agreements (SLAs) and Service Level Management (SLM) in the Internet infrastructure space by comparing the results of an in-depth SLA survey among the service providers in the industry as well as by profiling SLM solution vendors. In addition, this report asks and attempts to answer the following questions: Who is responsible for what?; What tools are being used to monitor and manage?; and What happens when things go wrong? The partnership architecture of this industry and the inherent uniqueness of an SLA prohibit the ability to make apples-to-apples comparisons. However, this report makes every attempt to break down the survey results into comparable sections.

- **To Investors:** Service providers with the best SLM processes and tools WILL have a competitive advantage. While a great or a poor SLA is not justification enough for a buy or sell decision, these results should help support a decision. That said, some of the publicly held firms with high scores in various areas include: AT&T, Digex, Internap, and Loudcloud. There are also a number of SLM software firms (mostly private) worth evaluating for venture funding that show significant promise with enterprises and xSPs.
- **To Service Providers:** SLM is at heart of the outsourced model. It is time to take a hard look at the tools being used to track and report SLM because those xSPs that have the best SLM WILL have a competitive advantage. While the results of this report suggest those wishing to cover all aspects of a client infrastructure to model after Digex, this conclusion is not applicable to all xSPs. As such, a more applicable conclusion to all xSPs is to look for ways to tie reaching performance-based service level guarantees into credits to be used against future SLA breach penalties, or better yet, automatic contract renewals.
- **To Customers:** SLAs should no longer be considered a useless item in your negotiating process. Since there are tools on the market to monitor/measure SLA performance, be sure to negotiate the correct tools to monitor your SLA or audit your service provider. Those looking for the best network SLA should turn to Internap; for the best security SLA, look to Digex; for the best infrastructure uptime SLA, look to Loudcloud; and for the best support SLA, turn to SevenSpace. More importantly, all providers are moving in the right direction and this should make your selection of virtually any provider for your needs the right one.

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METHODOLOGY

Tier 1 Research has conducted surveys and/or seen copies of each company's SLAs or supporting documentation covered in this report. Co-authors Andrew Schroeffer and Joshua Beil present an analysis that will help: 1) service provider better understand their competitor's SLA offerings, 2) investors uncover new reasons to support investment decisions and spot some exciting privately held prospects in the SLM sector, and 3) enterprise clients uncover strengths and weaknesses of this integral component of their service contract while also introducing certain tools to independently monitor a provider's SLA.

While the partnership architecture of this industry and the inherent uniqueness of an SLA often prohibit the ability to make apples-to-apples comparisons, this report makes every attempt to break down the survey results into four comparable SLA components: Customer Service, Network, Infrastructure Uptime, and Security. Survey participants had the choice to participate in any or all of the sections, and individual insights into each company's service level guarantees are discussed. In addition, company comparisons are made within and across the all sections, and overall industry trends are explored.

Similar in concept to our July 2001 report, *Gaining More Control*, which compared the portals of 25 infrastructure service providers, from the feedback gathered, we slightly revised the appropriate weighting for each item in our comparison list. In attempts to eliminate ambiguous or questionable scoring, we assigned a description about what each score for each item in the comparison list represented in terms of competency. A sample of one SLA scorecard section is shown in Exhibit 11. The report follows each scorecard with a description of each item and comments on highest score in each sub-category. The goal is to provide a context for understanding why we created each item and the relative importance of each item. The following companies are included in our analysis (see Exhibit 6).

Exhibit 6: Companies That Participated in the SLA Survey

<i>Company</i>	<i>Public/Private</i>	<i>Sections of Participation</i>
AT&T	NYSE: T	All
Conxion	Private	All
Cable & Wireless	NYSE: CWP	1, 2, 4
Digex	NASDAQ: DIGX	All
Exodus	NASDAQ: EXDSQ	All
Genuity	NASDAQ: GENU	*
Internap	NASDAQ: INAP	1, 2
InterOPS	Private	1, 3, 4
Loudcloud	NASDAQ: LDCL	1, 3, 4
MFN	NASDAQ: MFNX	1, 2, 4
NetVein	Private	All
NTT/Verio	NYSE: NTT	*
Qwest	NYSE: Q	*
Rackspace	Private	All
SevenSpace	Private	1, 3
SiteRock	Private	1, 3
Sprint	NYSE: FON	*
Telenisus	Private	All
Totality	Private	1, 3, 4

Note: Companies with a () did not participate in the survey actively.*

Exhibit 11: Sample Section of TIER 1 RESEARCH SLA SCORECARD (3 OF 4)

	ITEM	Poor 0	Average 1	Above Average 2	Excellent/Unique 3	Weight (Sub)
3.1	Infrastructure Availability (highest offered)	None	<99.9% or NA	99.9-99.998%	99.999% or greater	6%
3.2	Application Updates and Upgrades	Not included	Customer requested only	Customer given frequent recommendations	Full management of upgrades and updates	3%
3.3	Installation/Deployment for New Customers	None	> 1 month	2-4 weeks OR customer defined	<10 business days, standard	5%
3.4	Installation/Deployment Upgrades for Existing Customers	None	> 10 business days	5-10 business days OR customer defined	<5 business days, standard	3%
3.5	Adding Storage	None	> 2 business days	1-2 business days OR customer defined	Same day, standard	3%
3.6	Monitoring	None	A few monitoring types at least once a day, OS and below	A few types more than once a day, App Server and below	Multiple types across multiple protocols, throughout the day, DB server and below	12%
3.7	Management	None	Limited management of hardware, by customer request only	Moderate management of hardware, presenting options to customers	Full management including (but not limited to) proactive hardware procurement, deployment, break-fix, and OS installation/patching)	12%
3.8	Outsourced?	Partially or fully outsourced and customer does not know	Partially or fully outsourced, customer is either informed upfront and has 2 or more SLAs to manage or does not know	Partially or fully outsourced, customer is informed upfront but there is a single SLA	100% in-house, OR, partially or fully outsourced, customer is informed upfront, there is a single SLA, and tools are provided to measure both parties	5%
3.9	Penalties	None	Fraction of monthly bill	Significant portion of monthly bill	Full month (or months) credited	10%
3.10	Rewards	None	Appreciation	Financial	Automatic contract renewal	3%
3.11	Exemptions	Lots	Several - due to other xSPs or customer or uncontrollable acts	Just a few - mostly due to uncontrollable acts	None	5%
3.12	High Priority Issues (time to acknowledge, respond, resolution)	>60 min to acknowledge; >4 hours to respond or resolve	30-60 min to acknowledge; <4 hours to respond or resolve	15-30 min to acknowledge; <2 hours to respond or resolve OR customer defined	<15 min to acknowledge; <1 hour to respond or resolve	15%
3.13	Medium Priority Issues (time to acknowledge, respond, resolution)	>2 hours to acknowledge; >8 hours to respond or resolve	<2 hours to acknowledge; 4-8 hours to respond or resolve	30-60 min to acknowledge; 2-4 hours to respond or resolve OR customer defined	<30 min to acknowledge; <2 hour to respond or resolve	10%
3.14	Low Priority Issues (time to acknowledge, respond, resolution)	>4 hours to acknowledge; >2 days to respond or resolve	2-4 hours to acknowledge; 1-2 days to respond or resolve	1-2 hours to acknowledge; 4-8 hours to respond or resolve OR customer defined	<60 min to acknowledge; <4 hour to respond or resolve	8%
Infrastructure Uptime (Subtotal)						100%



Andrew M. Schroepfer

Mr. Schroepfer founded Tier 1 Research in August of 2000 after four years on Wall Street. Most recently, Mr. Schroepfer was a Vice President and Senior Equity Analyst with Goldman Sachs covering the Internet Infrastructure Services sector. Prior to Goldman Sachs, Andrew was with U.S. Bancorp Piper Jaffray where he covered Communication Service Providers as a Vice President and Senior Equity Analyst. Mr. Schroepfer is an honors graduate of St. John's University having earned a BA in Economics and Accounting. Andrew has been quoted in numerous worldwide publications such as the Wall Street Journal, Red Herring, USA Today, Web Hosting Magazine, HostingTech, Business2.0, and Inter@ctiveWeek. Mr. Schroepfer has also been interviewed on such television programs as CNNfn, Nightly Business Report, and various ABC-affiliate shows. (763) 694-9992 - andy@tier1research.com.

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