

TECHNOLOGY BRIEF

Service Level and Catalog Management in a Business Context | November 2010

managing service levels from an organizational perspective

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you can



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executive summary

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executive summary

Challenge

Traditionally, businesses operate under strategic objectives that are outlined to direct the organization towards an overall goal. These objectives are the basis for departmental targets. Typically, these objectives will translate into specific tactics for improving productivity, decreasing costs, growing margins, improving customer satisfaction and a number of other measurements that improve the performance of the business. While these objectives and goals are established for the business operations, in many organizations they are not translated into measurable tactics for IT. This lack of alignment for measurable success tends to cause a disconnect in communication. In today's competitive marketplace, organizations must have better insight into their operating costs and performance levels to drive greater profitability. Alignment of IT with the business through defined and measurable services is one method for gaining better visibility and establishment of a common language.

Opportunity

Establishing Service Level Management (SLM) metrics from a business viewpoint is key to realizing optimal Service Management success. By applying and understanding IT Infrastructure Library (ITIL®) best practices, CA Technologies has a proven approach to help you manage SLM throughout your entire organization while achieving better IT and business alignment. CA Technologies has learned through many customer interactions that most organizations start with a service desk as their initial entry into service management. Different versions of ITIL have written extensively on the role of the service desk and the service support process area, which has become the enterprise's face to IT and the backbone for typical IT support processes. Incident, problem, and in many cases, change management issues are now well understood and are being effectively managed. SLM is the most appropriate next step towards evolving your IT group into a service-focused and business-aligned organization.

Benefits

Understanding the different layers of SLM within your organization can provide you with the following benefits:

- By moving towards SLM, your organization can better understand the functions of IT by establishing baselines for performance, availability, and accountability. The result is that IT can deliver services with an accurate understanding of costs and performance and clearly communicate to your consumers.
- The goals established by your business are better understood and aligned with the IT department.
- IT is working (like other departments) towards the strategic objectives of your business.

Section 1: Challenge

Effectively managing service levels throughout your organization

Different layers within an organization can have many different views of the key performance indicators that, in many cases, make up the service levels for IT. The challenge is to get everyone in the organization to understand how service levels managed at each layer can affect the overall success of the organization. This technology brief focuses on how you can align service levels among the three layers within your organization — the business, service operations and the IT infrastructure.

Business service levels

From the business executive's viewpoint, service levels are included in contracts or Service Level Agreements (SLAs) that are based on meeting customer satisfaction to drive business revenue. In today's environment, an unsatisfied customer means loss of business and revenue.

In order for the business to understand and react appropriately to a service measurement, it must be in a language that has alignment to their goals and tactics. Examples of some business scenarios where service levels could be defined include:

- The billing department produces and distributes invoices in an accurate and timely manner through automated process systems, allowing a company to quickly process invoices to expedite receivables.
- Customers have online access to their accounts and their user experience is excellent due to agreed-upon response times. This results in positive customer satisfaction and increased retention ratings from online customers.
- Sales agents can quickly quote and execute an order through the order processing system, thereby increasing the time to contract.

Service operations service levels

The service operations layer serves as middle ground for alignment of IT and the business. This layer allows for the definition of IT services and the alignment of those services to business processes. In many organizations this layer is represented by the service desk or service catalog. At this layer the measurement of IT services are mapped between the upper layer (business measurement) and the lower layer details (the technical attributes of the service). Some examples of service levels that the service operations layer would measure include:

- Performance and/or availability of the automated invoice management system
- Customer service ratings and performance measurements for the online Internet site
- Response times, availability, and others of the order processing application

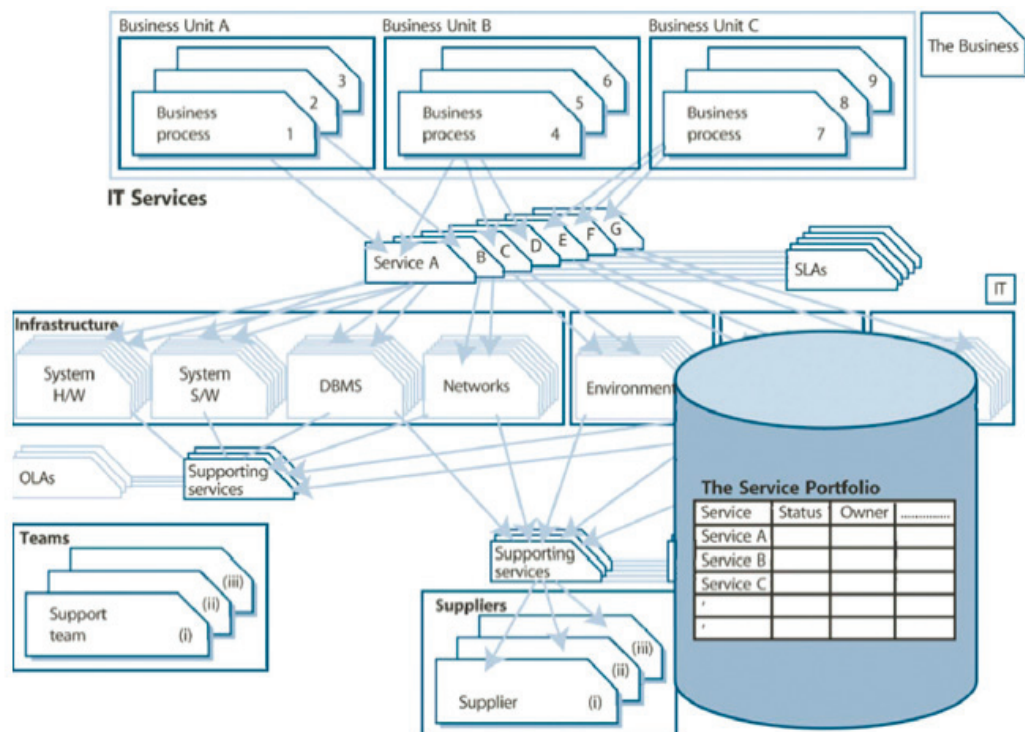
IT infrastructure service levels

From the infrastructure layer, SLAs, traditionally, are the operational metrics that are monitored and measured to understand IT performance. These SLAs are more focused on systems or processes that make up the services and are often based on technical IT metrics. The main responsibility of the infrastructure layer is to help ensure availability of the systems. The metrics at this layer are responsible for establishing preset thresholds to help ensure that systems that are about to cause a violation, which could result in down time or loss of a component of a service, are dealt with appropriately to prevent service outage. These metrics are also referred to as Operational Level Agreements (OLAs). Examples of OLAs can include:

- CPU utilization (that is, must not exceed 95% CPU for more than 5 minutes) for the invoice processing server
- Network throughput of the host web server
- Transaction process time on the database server of less than 3 seconds

Figure A below, taken from the Official Introduction to the ITIL Service Lifecycle¹, illustrates the different relationships within an organization and how they interact when developing SLAs. The business processes are supported by IT services. For example, an online banking system could be supported by IT services such as data backups, batch data feeds, and software upgrades, etc. Each one of these services would get published to the services catalog along with associated SLAs.

Figure A
SLM and the Role of the Service Portfolio/Service Catalog.



The IT services are comprised of IT infrastructure components such as system hardware, software components, databases, and network components, among others.

From an IT service design perspective, it is best to take a top-down approach, identifying the major services that support the business process first. Once the IT services are identified, you can decide what IT infrastructure components really need to be monitored. Traditionally, the business and IT organizations have operated in silos and IT would have the tendency to monitor IT infrastructure components without regard to the business goals provided by the services. This, in some cases, leads to meaningless SLAs that do not reflect the needs of the business.

Defining service level requirements across the organization

The SLM approach to aligning the business with IT starts with an analysis that focuses on the core services provided by the organization. SLM is a continuous, ongoing process, so you should start off slowly by looking at one or two key business services that you want to model. Once you pick a service, you should start by asking the relevant business departments what type of service quality is expected. It is important to put quantifiable metrics around the service levels that are expected. This top-down approach is based on the business objectives. It is important in the initial design phase for the IT organization to truly understand the needs of the business. The design at this level should focus on metrics such as availability, response times, and costs, and not on size of CPUs, network router capacity, and transaction times.

The type of questions that should be answered during the business assessment of the design would be as follows.

- What type of availability do you require?
- What is the consequence of loss of service?
- How long can you survive without the service?
- How much do you expect to pay for the level of service you are requesting?
- What is the expected user experience?
- What are your peak usage periods and how do they affect the quality of service?
- What is the anticipated demand (growth) for the service?
- What reports does the business need to support SLM contracts?

Once the business requirements are understood, the IT department can start to model the IT service. This starts by defining the components that make up the service. During this phase, the people, processes, and technologies that make up the service are identified. This allows the IT department to align the performance of the infrastructure to the business goals.

The challenge is to provide meaningful metrics at each level in the organization that will support the overall business objectives. To implement a successful SLM solution, the IT organization first needs to understand what the capabilities of its infrastructure are. Some key points to address are as follows:

- Is there any baseline monitoring data to support the performance of the components that make up the service?
- Do you have the ability to perform root cause analysis when incidents occur to prevent reoccurring outages?
- Is there any trend analysis data to support changes to user requests and behavior?
- Do you have the ability to receive alerts and status changes about the service to prevent outages before they occur?
- Is there required service downtime that needs to be taken into consideration for system maintenance, system backups, etc.?

Once these requirements have been outlined, the challenge for the IT organization is to determine the cost of the service required to support the goals of the business. It is important for the IT organization to be able to come to an agreement with the business through an SLA where the expectations of both parties are clearly understood. The relevant IT and business organizations should continuously meet to review and receive input on the quality of the service and ways to improve it. Some questions that IT can ask include:

- Is the service at the level they are expecting?
- Are they willing to pay more for a better quality of service based on business requirements?

After the initial SLM implementation, it is important to understand that SLA requirements will need to be adjusted as business requirements change. It is important to understand that SLM is an iterative process and it requires continuous improvement mechanisms to be employed.

From the service operations layer, it is not uncommon for organizations to establish user satisfaction metrics around the level of service being delivered. An organization may publish a service that meets the predefined metrics in terms of availability and performance, but what about user satisfaction? For example, a company may have an online service that requires users to enter duplicate information when processing a bank loan form or an insurance claim, or the online system has a slow response time. This could lead to frustration by the users and eventual loss of customers. Customer satisfaction metrics are other key metrics that are collected by a defined service operations layer. In many organizations, these are collected through the service desk function. This in itself can be reported on and tracked as an SLA. This also serves as another form of continuous monitoring that helps ensure that the whole process of delivering a service is constantly being tracked and that feedback is received for improvement.

SLM process scenario

Here is an example of how CA Technologies views SLM and how applying ITIL best practices can improve the performance of a key service that is provided to customers.

A financial services business has recently conducted a survey with their banking customers and the results have highlighted the poor performance of their online banking system. Based on the survey results, the business organization has developed a new strategic plan with a goal to increase the number of personal bank accounts by 40%. This business requirement calls for the deployment of a new online banking application to improve performance for existing customers as well as attract new customers.

In order to fulfill this requirement, the business engages with IT through a formal SLM process. The SLM process outlines how IT will design and deliver a service to meet the needs of the business requirement.

Once the business has defined their need through a business requirement for the new banking application, IT will work hand-in-hand with the business to specify how and what IT will deliver to meet this requirement. IT will develop a service specification that details out how they will deliver and fulfill this need through formal IT services (access, hosting, application development, systems administration, etc.). These services are mapped to the delivery of the overall business requirement and establish the expectation on quality and cost factors in terms that the business can easily understand. Once the business and IT are in agreement (through an SLA) for the new business service, IT will develop and deploy the service. Once the service is operational, IT will monitor and report to the business on the use, performance, and value (based on cost, risk, revenue, and efficiency) of the service.

The outcome of the SLM process is the following:

- A service catalog with a clearly defined service definition that meets objectives that the business can understand
- Full disclosure to the business of the cost to deliver the service
- A method that clearly defines how the service will be measured for performance and availability as it relates to the business goal.
- A set of key performance indicators that will track the progress of the service from the different layers in the organization
- The establishment of a formal SLA between the business and IT organization
- Data to support the justification for funding to improve the quality of service

Section 2: Opportunity

Effectively managing service levels throughout your organization

CA Service Level and Catalog Management

CA Service Level and Catalog Management (SLCM) is a unified solution that gives you the ability to manage the service lifecycle including Service Catalog, Service Request Management, Service Automation Management, Service Level Management, and IT Financial Management.

With CA SLCM, you can transform your IT organization from a reactive cost center to a proactive strategic business partner. You will gain insights to service consumption in financial terms, quality of services requests and see a top-down view of business SLAs. You can rapidly deliver IT services and prioritize your IT investments in alignment with business goals, resulting in higher value with lower risk.

- Demonstrate IT value and alignment
- Enhance the perception of IT and the customer relationship
- Improve operational efficiency
- Decrease costs and reduce business risk

CA SLCM features modular deployment options that can be implemented in a phased implementation approach, from a single point solution up to a fully integrated enterprise architecture across all ITIL disciplines.

There are two ways to get started with CA SLCM: CA Service Catalog and CA Oblicore Guarantee™.

CA Service Catalog — the user view

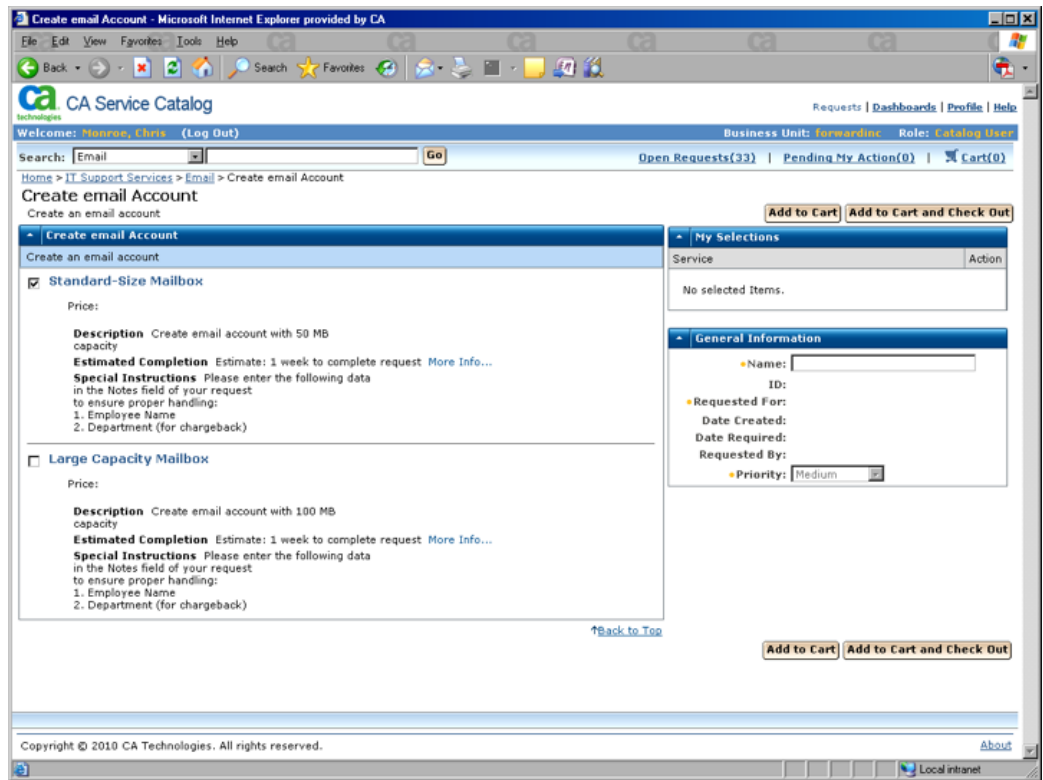
In ITIL v3, a larger importance is placed on the service catalog, which contains a description of services from which the user can subscribe. For the business layer this provides a user-friendly interface with easy-to-understand descriptions of the services and associated service levels and costs. This serves as a bridge to help align the business and IT layers within your organization. Defining the services and their associated levels of service allows the business to make informed decisions about the level of service required to run the business.

CA Service Catalog is an enterprise-class solution designed to define and publish business and IT services and provide financial insights. CA Service Catalog enables your organization to define its service offerings in business terms. Native multi-tenancy allows you to manage multiple catalogs to support a variety of provider/consumer business models. You can automate the delivery of services across physical, virtual, and cloud environments. You can better manage service demand and control IT spending through cost transparency, and calculate service usage in financial terms. You can associate service usage to departments, cost centers, and customers, and can even send out invoices for cost recovery if desired.

Figure B shows the view of a service for creating an email account in CA Service Catalog. Notice how the description and cost of the service is clearly defined and how it also indicates who will be responsible for the charges.

Figure B

Email service definition and description created with CA Services Catalog.



Once the customer requests the service, a predefined and automated workflow process routes the request to the appropriate approver, and upon approval, the fulfillment process is initiated.

Customers can receive email notifications about the status of the requested service and can always check on the status of the request by logging into the CA Service Catalog.

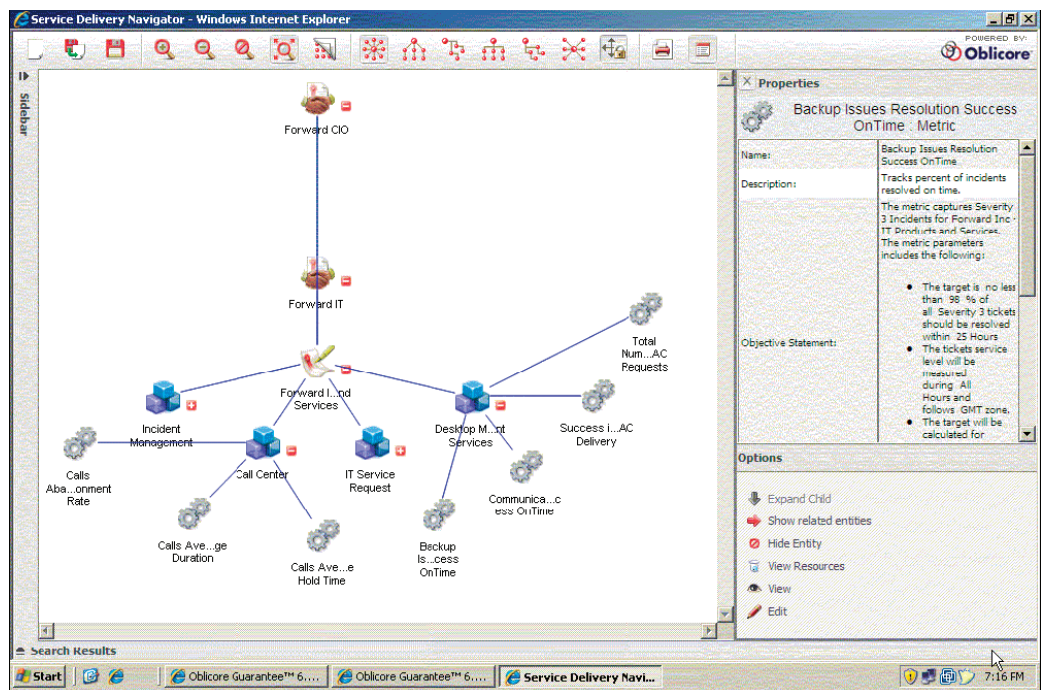
CA Obicore Guarantee – business-centric service level management

An operations-only approach to service level agreements provides an unbalanced view of service level reporting. In many cases, your reporting tools might be able to accurately indicate whether the solution is up or down. This “bottoms-up” approach requires expensive manual reporting and does not address service performance from a business perspective.

For business services where multiple applications function in tandem to execute the entire service, this incomplete picture is even more problematic as infrastructure solutions are unable to share information and assemble a comprehensive picture of business performance. Each application monitors only its own uptime without concern for the entire service chain. What you need is a solution that correlates the data from these tools, aggregates the data behind them, and takes a top-down approach to service level agreements such as CA Oblicore Guarantee.

Figure C

CA Oblicore Guarantee's service delivery navigator gives visibility to service relationships



Section 3: Benefits

Effective management of service levels

CA Technologies believes that providing an SLM solution at the organization layer will allow you to better manage your expectations and business goals. Designing the services from the top-down with the understanding of the three different layers and roles helps to provide realistic SLAs.

Some direct benefits are:

- Monitoring of service components with a solution such as CA Oblicore Guarantee will provide feedback for areas of improvement by providing trends on the performance of measured IT resources.
- Historical reporting provided by CA Oblicore Guarantee will allow the organization to better understand and negotiate both internal and external SLA contracts.
- Constant feedback to the different layers in the organization will help to meet and exceed customer expectations with an improved quality of service.
- The alignment between the business and IT organization will be better understood. CA Service Catalog will help to bridge the gap between the business and the IT organization by having services clearly defined in the service catalog with associated SLAs. The approval and fulfillment of services requests are also clearly defined and known by everyone in the organization.
- Service level managers can provide meaningful reports to the business on service performance. Native service level reporting in both CA Service Catalog and CA Oblicore Guarantee will help to provide a better understanding of the organization's key performance indicators (KPIs).
- CA Service Catalog and CA Oblicore Guarantee provide you with comprehensive visibility into the performance and the total cost of delivering IT services.

Section 4: Conclusions

To successfully implement a Service Level and Catalog Management Solution, you need to be able to publish services that users can subscribe to that meet agreed upon levels of services with associated costs. CA Service Catalog provides a means for the business to clearly see the value of the services provided.

From an organizational viewpoint, to help the IT organization commit to and deliver the optimal value, it is important to monitor and report on the essential components that make up the service. CA Oblicore Guarantee can help to align the business and IT organization by producing meaningful reports to show availability and performance of IT infrastructure components that make up the services.

Section 5: References

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Section 6: About the author

Gary Eisenhuth is an experienced and well-versed IT architect with over 20 years experience in developing and deploying enterprise-level software solutions focused on IT management. He has 14 years experience in deploying and architecting solutions for a wide variety of CA Technologies customers. He has a solid background in network management and monitoring of IT infrastructures and is very capable in bridging the needs of IT and the business organization together to achieve maximum utilization.

He is currently a Senior Architect at CA Technologies, in the services practices organization where he is responsible for working closely with customers in designing and implementing service level management solutions. Gary has a Master's degree in Computer Science and is ITIL Certified.

To learn more about the CA Service Level and Catalog Management solutions, visit ca.com/slcm. For more information on CA and ITIL, visit ca.com/itil.

CA Technologies is an IT management software and solutions company with expertise across all IT environments—from mainframe and distributed, to virtual and cloud. CA Technologies manages and secures IT environments and enables customers to deliver more flexible IT services. CA Technologies innovative products and services provide the insight and control essential for IT organizations to power business agility. The majority of the Global Fortune 500 rely on CA Technologies to manage their evolving IT ecosystems. For additional information, visit CA Technologies at ca.com.

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