

OpTier BTM™

A key enabler of ITIL service delivery

ITIL represents a collection of best-practice guidelines for IT service management. The implementation of ITIL has a direct impact on business success because it helps align IT thinking and execution with business needs.

OpTier BTM enables implementation of many of the best practices found in the IT service delivery handbook, and is especially valuable for:

- Mapping actual business services to IT resources
- Exposing total resource consumption broken down by business service type
- Monitoring, measuring and collecting data, including aggregation and reporting on exceptions.

ITIL service management v3

In ITIL v3, OpTier supports all four stages following the definition of service strategy:

- **Service design:** OpTier BTM provides key data to assist with service level management, availability management, capacity management and service catalog management.
- **Service transition:** OpTier BTM is central to identifying service assets and reporting business activity so that change and configuration management processes can be streamlined to minimize business impact and disruption during service transition.
- **Service operation:** OpTier BTM can pro-actively alert on service outages and breaches to automate incident and problem management processes. It also provides a profile of business transaction latency, resource consumption and flow so that problems can be isolated and auctioned in seconds rather than hours, days or weeks.
- **Continual service improvement:** OpTier BTM provides unique intelligence to optimize services as well as compare service level and performance over time. Comprehensive reporting allows all changes to be quantified so that service improvement can be benchmarked and tracked continuously.

ITIL service management v2

OpTier BTM is a key part of Service Delivery and Support in ITIL v2.

Service delivery:

- **Service level management:** Manage SLA for every business transaction, application, user and tier within your portfolio of business services and infrastructure.
- **IT financial management:** Understand and analyze the cost of your business transactions, applications, and users relative to the resources they consume from their IT infrastructure.
- **Capacity management:** Gain definitive visibility into the true resource consumption and trending of your business transactions, applications and users over time.

Highlights

OpTier BTM supports the following ITIL management activities:

- Service level management
- Financial management for IT services
- Capacity management
- Availability management

- **Continuity management:** Discover where your most critical business transactions flow and create contingency plans around their IT dependencies to ensure you maintain business continuity.
- **Availability management:** Understand and report on whether your users can successfully complete their business transactions or whether they experience errors that can impact your business.

Service support:

- **Incident and problem management:** OpTier BTM can pro-actively alert on service outages and breaches to automate incident and problem management processes. It also provides a profile of business transaction latency, resource consumption and flow so that problems can be isolated and auctioned in seconds.
- **Release management:** OpTier BTM is central to reporting business activity so that release management processes can be streamlined to minimize business impact and disruption during service transition.
- **Configuration management:** OpTier BTM is central to discovering CIs and reporting business activity so that configuration management processes can be streamlined to identify and minimize business impact and disruption.

The following pages detail **ITIL stipulations/recommendations** in the left-hand column and **OpTier BTM support for implementation** in the right-hand column.



Service level management (SLM)

OptTier BTM provides extensive support for the service level management process as detailed below:

ITIL stipulation/recommendation	OptTier BTM support for implementation
A service delivery requirement should not be defined if it cannot be measured and monitored. In many cases, such monitoring may be technically very difficult.	Provides performance measurement and monitoring, allowing the definition of service delivery requirements for transactions – representing business services.
Problems can occur when SLM is IT-based rather than business-aligned.	Specializes in business aligned monitoring and management.
Users don't always know what they require; the process requires creating temporary definitions describing the existing conditions.	Provides the ability to create a baseline of existing performance as a starting point in defining a service delivery target.
Business services are differentiated from infrastructure services, and a service catalogue should be established.	Discovers and automatically establishes the foundation of the service catalogue. It describes the actually used services and components and allows users to name and classify them.
A service catalogue should be a basis for business impact analysis which can then ensure that the most important services are covered first.	Maps the services to It components allowing accurate impact analysis of issues in business activity terms.
Attention should be focused on each breach of service levels to determine what caused the loss of service	Monitors every activity on the system (every transaction is discovered, traced and monitored). It therefore can identify and document every breach and provide the details necessary to determine the cause.
There is an extensive list of metrics for service delivery requirements that need to be measured, including throughput and transaction response times.	Monitors both throughput and transaction response times.



Financial management for IT services

For the financial management process OpTier BTM provides support as detailed below:

ITIL stipulation/recommendation	OpTier BTM support for implementation
IT accounting can be used to charge a fixed amount for an agreed capacity (determined by service delivery requirements). Charging is often based on billing for agreed periods at agreed rates.	Can provide input to IT accounting as to the capacity used by each and every business entity consuming IT resources.
Additional charges may be made for work above the agreed service levels	Can provide input to IT accounting as to the usage by each and every business entity consuming IT resources classified by which specific service delivery was performed above the agreed service levels.
The aims for any IT services organization should be to be able to account fully for the spend on IT Services and to attribute these costs to the services delivered to the organization's customers	Uniquely able to attribute specific usage of IT resource component use as a basis for determining actual direct cost allocation.
There may be problems with the monitoring tools providing resource usage information	Unique in providing accurate and cost effective resource usage information to overcome this identified problem
IT accounting requires among other things resource metering	Provides resource metering attributed to a specific business service and user.
Other requirements that are the purview of costing/rating policies and software.	Provides the usage info as input to the rating/costing process.
The pricing of any product or service involves understanding the true (not perceived) demand for the service.	Provides accurate usage measurements that can be used to determine true demand over time.



Capacity management (CM)

For the capacity management process OpTier BTM provides extensive support as detailed below:

ITIL stipulation/recommendation	OpTier BTM support for implementation
<p>The process encompasses the monitoring of performance and throughput of IT services and the supporting Infrastructure components.</p>	<p>Monitors the performance and throughput of the IT services and the supporting Infrastructure components and can take these metrics another step by breaking them down within the components by the IT service they are associated with.</p>
<p>The process encompasses undertaking tuning activities to make the most efficient use of existing resources.</p>	<p>Enables on-the-fly resource usage efficiency which can provide temporary or ongoing relief while tuning issues are addressed.</p>
<p>CM balances cost against capacity – i.e. the need to ensure that processing Capacity that is purchased is not only cost justifiable in terms of business need, but also the need to make the most efficient use of those resources</p>	<p>Provides the means to associate costs with business needs and because of its ability to make efficient use of resources, it can delay cash out lay providing more value per cost and per Capacity.</p>
<p>CM balances supply against demand – i.e. making sure that the available supply of processing power matches the demands made on it by the business, both now and in the future; it may also be necessary to manage or influence the demand for a particular resource.</p>	<p>Uniquely provides a breakdown of how each business need uses shared components. These metrics can be integrated with a CM forecasting model to better predict how the different changes in different business needs will affect the necessary capacity of each component in the future.</p>
<p>CM is divided into 3 sub processes: Business, Service and Resource CM. The focus of the Service CM is the management of the performance of the live, operational IT services used by the Customers. It is responsible for ensuring that the performance of all services, as detailed in the service delivery targets, is monitored and measured, and that the collected data is recorded, analyzed and reported. As needed, action is taken to ensure that the performance of the services meets the business requirements. This is performed by staff with knowledge of all the areas of technology used in the delivery of end-to-end service and often involves seeking advice from the specialists involved in resource capacity management (RCM).</p>	<p>Monitors and measures end-to-end performance of services, collects, analyzes and reports on the data.</p> <p>Enables the establishment of an accurate resource consumption base line per business service. This is useful in both understanding current state and improving the algorithm to predict future resource usage (based on business activity prediction).</p>



ITIL stipulation/recommendation	OpTier BTM support for implementation
<p>Monitored services provide data that can identify trends from which normal service levels can be established. By regular monitoring and comparison with these levels, exception conditions can be defined, identified and reported upon.</p>	<p>Provides the ability to monitor for a period of time, collect data and then establish this as a base line for comparisons.</p>
<p>On occasion a failure may not be resolved by RCM. For example, when the failure is analyzed it may be found that there is no lack of resource, or no individual component is over-utilized. However the design or programming of the application is inefficient, and so the service performance needs to be managed, as well as hardware or software resources.</p>	<p>Excels in its ability to identify service failure even when components seem to be fine. This is because OpTier BTM tracks the service through its components whereas other tools track components and correlate (i.e. guess) the overlying service.</p>
<p>From a knowledge and understanding of the use of resources by each of the services being run, the effects of Changes in the use of services can be estimated. The hardware or software upgrades can be budgeted and planned. Alternatively, services can be balanced across the existing resources to make most effective use of the resource currently available.</p>	<p>Resource monitoring tools cannot differentiate usage by different services except through correlation. OpTier BTM is the only tool that can supply Resource CM with accurate usage metrics of a resource by a specific service.</p>
<p>CM provides information on current and planned resource utilization to enable organization to decide with confidence when to upgrade – ideally this is not too early, resulting in expensive over-capacity, nor too late, resulting in bottle-necks, inconsistent performance and ultimately customer dissatisfaction and lost business opportunities.</p>	<p>Provides another level of granularity to the CM model making the resource utilization forecast better. OpTier BTM prevents bottle-necks, smoothing performance inconsistencies and helps to maintain customer satisfaction (because business systems go down less).</p>
<p>CM information is used as input to the service delivery management process when a new service is implemented for assurance that the service requirements are achievable, and that the delivery of existing services will not be impacted.</p>	<p>Can help estimate if new service requirements are achievable in production, by showing how the service uses resources in a development or testing environment. OpTier BTM can also be used to guarantee that the delivery of existing services will not be impacted.</p>



ITIL stipulation/recommendation	OpTier BTM support for implementation
<p>The monitored data should be gathered at total resource utilization level and at a more detailed profile for the load that each service places on each particular resource. This needs to be carried out across the whole Infrastructure, host or server, the network, local server and client or workstation. Similarly the data needs to be collected for each service.</p>	<p>Unique in its ability to identify the load placed by each service on the host, server, local server and workstations. OpTier BTM has interfaces to connect to network monitoring services to help them identify the breakdown of load by service.</p>
<p>All thresholds should be set below the level at which the resource is over-utilized, or below the service delivery targets. When the threshold is reached, there is still an opportunity to take corrective action before the target has been breached.</p>	<p>Provides two threshold markers per service that can be used to identify the service delivery target breach point and another to identify the before breach point.</p>
<p>Many service delivery requirements have user response times as one of the targets to be measured, yet many organizations have great difficulty in supporting this requirement. User response times of IT and network services can be monitored and measured in several ways:</p> <ul style="list-style-type: none"> ➤ By incorporating specific code within client and server applications software. ➤ By using 'Robotic scripted systems with terminal emulation software. These only give sample response times. ➤ By using distributed agent monitoring software. These only give sample response times. ➤ By using specific passive monitoring systems tracking a representative sample number of client systems. These only provide an approximation. 	<p>Does not generally require instrumentation, and does not use sampling. OpTier BTM can provide in-production, low-overhead, end-to-end service response times for all users and all transactions, all the time.</p>
<p>The ability to identify the specific hardware or software resource on which a particular IT Service depends is improved greatly by an accurate, up-to-date and comprehensive CMDB.</p>	<p>While OpTier BTM does not provide a comprehensive CMDB, it does actively track the actual services and components in use per server. It can therefore be used to update and verify that the existing CMDB is accurate and up-to-date.</p>



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<p>Example:</p> <p>If a processor that is 75% loaded during the peak hour is being used by two different services, A and B, it is important to know how much of the total 75% is being used by each service. Assuming the system overhead on the processor is 5%, the remaining 70% load, could be split evenly between the two services. If a change in either service A or B is estimated to double its loading on the processor, then the processor would be overloaded.</p> <p>However if Service A uses 60% and service B uses 10% of the processor then the processor would be overloaded if Service A double it loading on the processor. But if serve B double its loading on the processor then the processor would not necessarily be overloaded.</p>	<p>Unique in its ability to break down processor load by business service, enabling much better forecasting by CM.</p>
<p>Potentially there is a vast amount of utilization data available. Ideally data is required that shows the current utilization of all components of the IT Infrastructure, minute-by-minute, hour-by-hour, day-by-day, etc. However after a period of time, for example one week, the minute-by-minute data will no longer be required. Similarly after on month, the previous month's hour-by-hour data is not required.</p>	<p>Aggregates utilization data by default. When a period of interest is defined then core data is maintained and not aggregated for that period.</p>
<p>The first stage in modeling is to create a baseline model that reflects accurately the performance that is being achieved. When this baseline model has been created, predictive modeling can be done, i.e. ask the 'what if?' question that reflect planned changes to the...workloads. If the baseline model is accurate, then the accuracy of the result of the predicted changes can be trusted.</p>	<p>Produces an accurate baseline because it tracks all transactions (business services) across all tiers.</p>



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<p>The service delivery requirements of the planned application developments should not be considered in isolation.</p> <p>The resources to be utilized by the application are likely to be shared with other services and potential threats to existing service delivery targets must be recognized and managed.</p>	<p>Mitigates the threat to existing service delivery requirements and enables management and adjustments of the new development's targets.</p>



Availability management

For the availability management process, OpTier BTM provides limited support as detailed below:

ITIL stipulation/recommendation	OpTier BTM support for implementation
The cost of an IT failure could simply be expressed as the number of business or IT transactions impacted, either as an actual figure (derived from instrumentation) or based on an estimation.	Provides an accurate mapping of the business services affected by a components failure.
For a new or existing IT service, monitoring of business and customer transactions helps establish the hours where IT service usage is at its lowest. This should determine the most appropriate timing window for the component(s) to be removed for planned maintenance activity.	Provides the end-to-end transaction monitoring that can show the time frame in which usage is lowest.

About OpTier

Of the billions of business transactions conducted every second, more are assured by OpTier than by any other IT management software company.

OpTier’s Business Transaction Management solution (OpTier BTM™) enables business application owners to take control over service performance and availability. OpTier BTM assures the quick and successful execution of all business transactions, by managing every step of every transaction. It delivers unparalleled visibility of all business transactions in order to eliminate outages, effectively manage change and improve end-user experience. OpTier, with a fast-growing list of Global 2000 customers, pioneered the concept that transactions are where IT and business meet.

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