Interlink Software

# Automated Service Intelligence (ASI)

*Enriching information for action*

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## The New Challenge For The Intelligent Business

As the pace of doing business continues to accelerate exponentially, companies everywhere are demanding significantly more from their enterprise IT functions - such as improved quality and accelerated delivery of business services with lower risk and ultimately lower costs. To meet this challenge, IT has no choice but to evolve.

Much of this evolution is necessitating enterprises to embrace technologies such as cloud computing and virtualization. Added to this, many enterprise IT organizations are procuring technologies from a variety of different technology providers. Integrating these distributed technologies into existing infrastructures whilst delivering a high quality end-to-end IT service, all in a way that ensures the highest possible service levels, is a significant challenge.

The traditional and typically 'siloed' practices of IT can make it very difficult to meet these challenges, particularly from a service intelligence perspective.

At best, the business is often provided with a fragmented and technology-centric view of which infrastructure elements and application components across their environment actually comprise specific business services. Not surprisingly, this results in constant fire-fighting, slow resolution and extended troubleshooting and support resource in order to directly relate IT assets to the services being impacted. In addition, the complexity and dynamically changing nature of virtualization and cloud computing make it even more difficult to track resources that comprise specific services.

In order to retrieve meaningful business-centric and service-focused intelligence from such ever-increasing complex infrastructures, a unified approach is needed that directly links IT to the management of the business. Services need to be matched to business priorities, and IT priorities and investments need to be aligned with the greater goals of the business.

Achieving this level of alignment can be done by taking a consolidated approach built on a unified service model and an integration platform that provides intelligent automation for the entire IT service life cycle. Adopting such a model will deliver business-level actionable insight, whilst enabling IT organizations to proactively manage services, and not simply the underlying assets — thereby dramatically increasing the utilization and performance of the infrastructure and enabling dynamic allocation of resources to meet business demands and drive innovation.

This unified approach is what Interlink Software calls Automated Service Intelligence, or ASI.

## Intelligence: The CIO imperative

Intelligence solutions for IT enterprises which have been built using 'traditional' BI tools tend to only be able to satisfy a small fraction of the intelligence needs of most organizations. This is most likely to be the reason why BI continues to rank as an ongoing top priority in many CIO surveys, despite years of BI implementations and hundreds of different BI tools available on the market.

Much of this satisfaction shortfall can be attributed to the difficulty and delays of building, maintaining, and integrating the disparate components required for many of today's BI solutions. Unfortunately, due to the difficulties that many experience, often companies tend to dramatically scale back their expectations or give up entirely, never attaining the true value of what real business intelligence can offer.

As business dependence on IT increases however, so does the need for IT to be accountable, meaning IT must understand how business evaluates the services IT provides and therefore provide intelligence to support this. Service must be measurable, and business priorities and user success must be the ultimate arbiters of quality. To ensure accountability and shared goals, both IT and

business stakeholders need visibility and intelligence around the quality of services IT provides.

This is why intelligence is a CIO imperative - and this need is driving a new generation of advanced business intelligence solutions.

## From technology-centric to service-centric

In the creation of business intelligence metrics, many organizations leverage the output from infrastructure management tools to support monitoring and reporting. The resulting metrics tend to be both technology-focused and engineering-focused metrics, such as downtime, along with CPU and disk usage. This ability to report on how IT operates from an IT perspective is no longer remarkable; it is fully expected. But this information is of no relevance for business or service managers, who need intelligence on their own terms rather than IT terms.,

With this in mind, some organizations look to leverage the output from service focused deliverables such as Service Catalogs and Service Level Agreements (SLAs) in order to provide metrics and feedback to end-users about actual quality of service. Unfortunately, once again, the feedback here is primarily IT-centric rather than business-centric, relating primarily to metrics such as system availability and response times, as opposed to taking a business view of services.

Whilst many Business Managers can be considered 'technically-savvy', they expect IT to measure and report on service quality and overall service health using business-centric and metrics rather than IT-centric metrics. Business Managers view IT as simply an enabler of business processes, and will increasingly measure IT on how well it directly supports the business on their terms.

Added to this, many of todays business services exist across application and other network and logistical boundaries. Business will expect IT to be able to mirror this perspective and understand the impact of their IT across the board.

Ultimately, intelligence around the quality and health of IT services must be delivered to the business in business terms.

## Full control through holistic intelligence

To derive true business-centric intelligence that will be genuinely useful to Business Managers, a holistic, 360 degree approach must be taken. Managing business intelligence in this way can be compared to the act of driving a car.

To understand and interpret historical data, businesses need clarity in their 'rear view mirror' to be able to see what is effectively 'behind' them. This is known from a business intelligence perspective as Historical Reporting, and is the most commonly implemented (but least insightful) BI function across many businesses.

To understand and interpret what is happening right now, businesses need a 'real time' view of the world. Continuing the car analogy, this would require a clear understanding and visibility of current speed, revs and fuel level. This is known from a business intelligence perspective as the Real-Time Dashboard. Real-time dashboards tend to present intelligence relating to current state data, such as system availability, network performance and thresholds breached or nearly breached. Whilst this information may be invaluable, it doesn't paint the 'bigger picture' from a service perspective, nor does it incorporate any future or predictive intelligence.


To be able to look forward in order to see the road ahead, including any early warning signs of what is coming, you need a clear forward view through the car windshield. This is what is known from a business intelligence perspective as Predictive Processing.

Only by bringing all three 'views' together and combining historical, real-time and predictive can we ever fully be in control of our car. This combined and holistic approach to intelligence can also be applied to business management and is delivered by Automated Service Intelligence (ASI).

ASI presents this holistic approach to intelligence via the Real-time Report.

The Real-time Report focuses on holistic intelligence around the overall health of a service, and is derived from multiple intelligence feeds (for example, availability, security, business data, trends, performance etc.) Real-time Reports are the mechanism for presenting this combined and service-oriented approach to business intelligence across the three previously discussed 'views' - historical, real-time and predictive. This multi-dimensional approach to presentation of business intelligence is unique and is considered the pinnacle of the ASI offering.

## Transforming IT into a flexible engine for growth

As previously discussed, whilst new technologies such as cloud computing and virtualization offer the promise of unprecedented IT infrastructure flexibility, they also add a new level of complexity and additional management needs. For IT to serve as the flexible engine of business agility that it needs to be, the IT environment needs to be converged and aligned around the business services they support.

ASI helps make this a success by taking an integrated approach to business intelligence that combines a top down and bottom up approach to monitoring and spans both the physical and virtual infrastructure. The ultimate goal is to manage every element of the business service—including infrastructure, applications, transactions, experience, virtualization, and any services that may be delivered via the cloud.

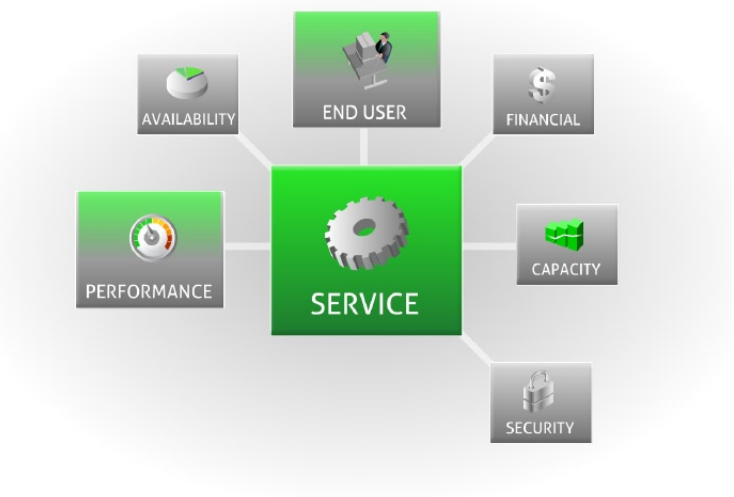
ASI is designed to correlate and analyze this information from your infrastructure and other IT management tools in real time, in order to accurately visualize services, calculate service quality and to pinpoint what impacts service quality and what puts it at risk. Through this production of true service intelligence and leveraging the Real-time Report, IT can be transformed into a flexible engine for business growth.

## How ASI works

ASI is unique in its ability to deliver business critical intelligence in a holistic, multi-dimensional form, concerning business service health and related events.

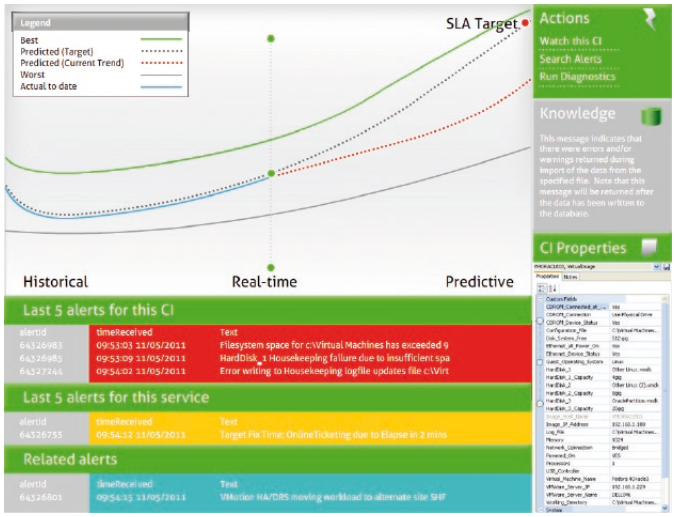
At its highest level, ASI distills all information available from IT and the business to deliver a concise, real-time report of service health, showing historical norms, current state and predicted future performance via the Real-time Report.

From a User Interface (UI) perspective, flexible, role-based dashboards (for IT executives and service owners)



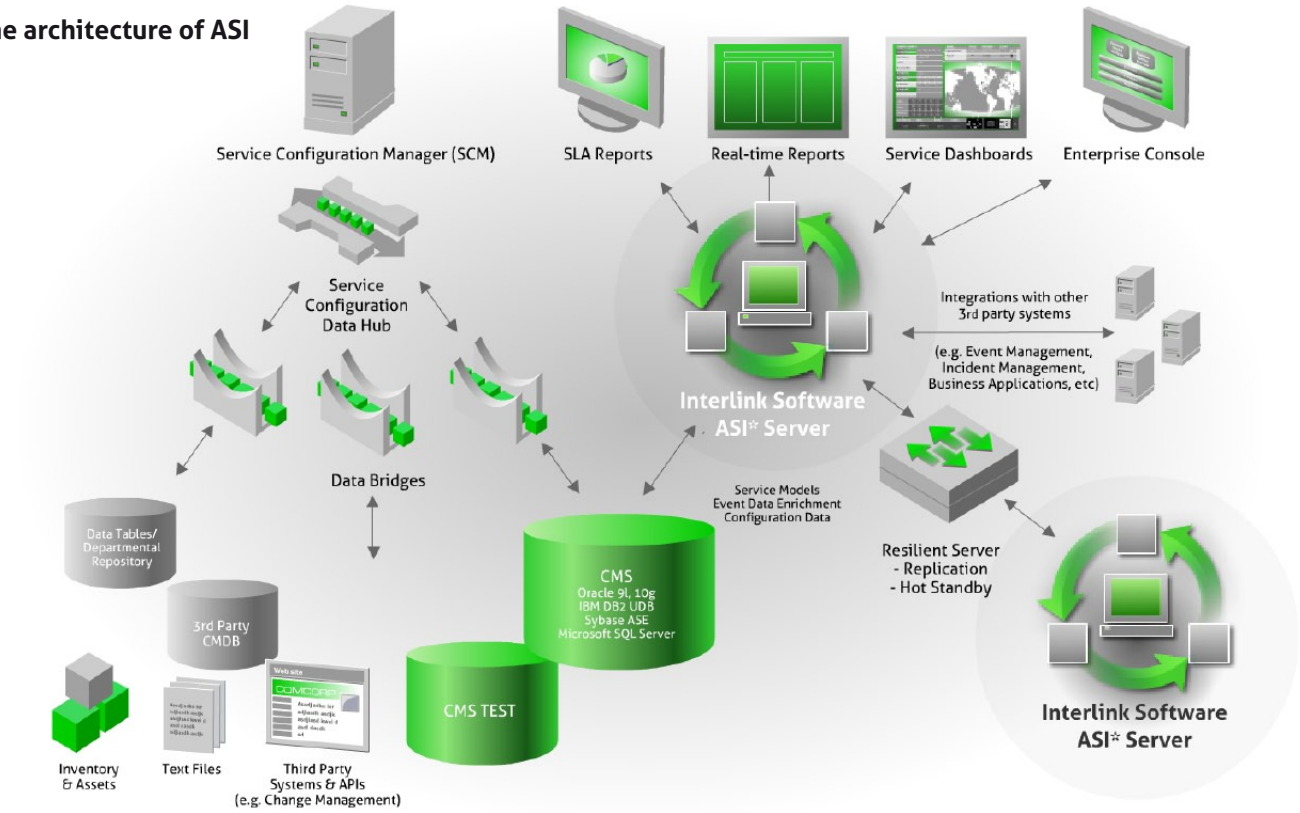

and operational consoles (for operations managers and technical staff) foster a shared understanding of business services. This provides real-time actionable information and contextual insights so IT executives can focus operations on business priorities, business and service owners can understand IT status in business terms, and operations staff always knows which components in their technology domains are impacting specific business services and can proactively mitigate risks.

Speed of deployment and flexibility of dashboard creation also proactively supports the inclusion of both business and IT groups from inception in the creation of intelligence solutions using ASI.




From a practical perspective, ASI is built upon a highly-scalable open architecture (OSGi) model, supportedby a series of adaptors (or plugins) that integrate all the existing management tools, repositories (including Configuration Management Databases) and the proprietary events they generate. The use of OSGi reduces complexity by providing a modular architecture for today's large-scale distributed systems as well as small, embedded applications. The ASI Plugin library includes Configuration Management, Service Modeling,

**The architecture of ASI**




Automation, Notification, and various other 3rd party adaptors. The ASI platform independence and flexible open architecture can accommodate any enterprise IT environment and is built to adapt to rapid change, as often experienced in dynamic business environments.

# The ASI Flow

## Acquisition and integration of data

- Information is extracted from all of disparate and virtualized feeds from across the infrastructure and beyond, then consolidated to provide an integrated ASI data source

## Application of intelligence/Data enrichment

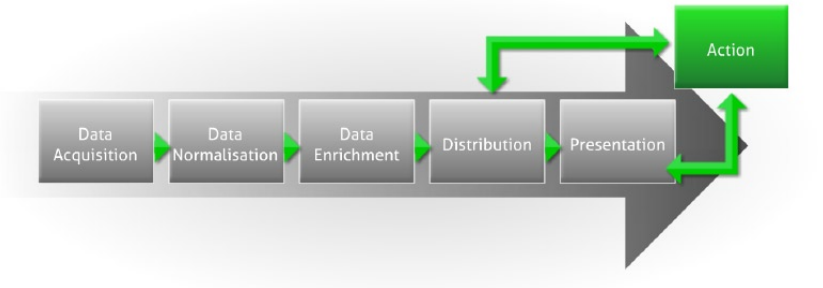
- Rules-based processing is applied to ensure that events are reported via the correct medium and remedial action is properly directed
- Configuration-driven architecture adjusts to changes detected in the underlying systems and infrastructure

## Presentation and Distribution

- Contextual intelligence is applied across role-based flexible dashboards, suitable for everyone from the CIO to IT support staff
- Intuitive single-pane, Real-time Reports provide key multi-dimensional, service-oriented information about business service health for business and IT representatives. For example, are business services available and functioning? Are business services performing as required?  If not, where are the problems?

## Action

- Offering the ability to take action dependent upon context
- Actions are synchronized back, leveraging the investment in underlying tools and application



## The benefits of ASI

Implementing an ASI based approach to your enterprise intelligence can help improve service quality and predictability while optimizing IT operations through:

- Improved IT Agility: ASI makes it easier to determine the root cause of service issues experienced by business users, and to prioritize IT support activities in terms of business benefit. It also accelerates turnaround times on delivering new services and enhancing existing offerings.
- Deep and dynamic insight: Enabling the IT organization to manage across silos and focus on the business services they support, by providing deep insight into how the infrastructure aligns with services.
- Better manage service to business goals: through consolidation of infrastructure intelligence, service-to-business priorities are better managed through ensuring that service and user experience levels meet business demands.
- Rapid time to value: Through ASI, results can be delivered far more rapidly, putting valuable predictive analytics and intelligence in the hands of business users and decision makers who have the greatest impact on revenue and profits
- Greater flexibility: The intelligence from ASI is accessible and flexible for business users, who initiate and manage their own BI projects, so each implementation can readily keep pace with ever-evolving and dynamic business needs.

## Conclusions

Automated Service Intelligence (ASI) moves beyond the realms of traditional Business Intelligence (BI) or Business Service Management (BSM) to deliver the intelligent flexibility and innovation required by today's agile enterprise.

Empowered with complete, real-time information and corrective capabilities, IT can support business processes proactively and insightfully — simultaneously optimizing both service quality and cost efficiency.

Ultimately, ASI will support the IT enterprise function moving beyond alignment with the business to become a source of technology innovation that drives growth new revenue streams.

**This is the vision of ASI.**

## Interlink Software and ASI

Interlink Software is uniquely positioned to help you meet the challenges of automated service intelligence in a rapidly evolving IT environment that must contend with the dynamic nature of virtualization and cloud computing.

Interlink Software

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