Accelerate Value Through Service Mapping

ServiceNow ServiceWatch™
Introduction to ServiceWatch

IT delivers services that businesses need to engage customers, streamline operations, and empower employees. These services have to be robust and responsive – or business suffers.

IT organizations rely on a disconnected array of infrastructure tools to manage changes and resolve issues. However, they often lack business and service context – they don’t know how infrastructure changes will affect business services and struggle to identify the root cause of service problems.

Unfortunately, creating an accurate service-aware view and then keeping it up-to-date is a big challenge, particularly with conventional approaches, which all require manual modeling.

This solution brief examines this challenge and explains how ServiceNow overcomes it by building and maintaining accurate, up-to-date service maps – making IT completely service aware.
Once CIs have been discovered, they still need to describe the way that services are delivered. This is not simply a matter of creating relationships – it requires a deep knowledge of the specific service and its component technologies.

Typically, this involves extensive stakeholder interviews. The process is iterative, involving creation, validation, and adjustment of models until the service is accurately represented. This entire process must be continually repeated as changes are made to the infrastructure components.

Studies show that manual service mapping takes on average 14 days per business service but may extend to upwards of over a month for a complex, custom-built application. Not only does it require the time of a highly skilled resource, it also needs further input from a variety of diverse functional specialists (network, application, server, etc.) who have “tribal” knowledge about the service.

### Challenges: Manual Service Mapping

| Prepare | Establish Service Class Definitions  
Define roles & responsibilities, standards and & procedures  
Validate CMDB, CI classes, Discovery tool & discovered CIs  
Define meta-model (model template) |
|----------|----------------------------------------|
| Build    | 1. Choose a service/application to model  
2. Discovery phase (manual & automated); create a blueprint  
3. Decompose the service/application; update the blueprint  
4. Configure Discovery to discover & model application dependencies  
5. Verify monitoring of components  
6. Relate events to components (alias association)  
7. Build and test the Service Model in CMDB  
8. Validate event associations  
9. Go Live |
| Maintain | Ongoing maintenance  
Continuous improvement |

### Modeling Approach

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### Mapping Effort Timeline

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| 2-5 days        | Business Process Owners  
Application Owners  
IT Operations Executive  
Project Manager  
Solution Architect |
| 10-20 days      | Application Experts  
IT Operations Executive  
Configuration Manager  
Enterprise Monitoring Manager  
Test Manager  
Test Specialist  
Project Manager  
Solution Architect  
Discovery Specialist  
Service Modeling Specialist  
Monitoring Specialist  
Event Management Specialist |
| 2-10 days       | Business Process Owners  
Application Owners  
IT Operations Executive  
Configuration Manager  
Enterprise Monitoring Manager |
Virtualization and cloud services have brought unprecedented agility and cost savings to IT organizations, but this has come at a price.

As applications continue to evolve, the underlying IT components that deliver are changing rapidly. Virtualized infrastructure springs into life, often without any direct human intervention, and computing and storage capacity is added on demand.

Traditional manual approaches to service modeling are intended for environments where change takes place over days or weeks. They cannot respond to modern dynamic environments where change is measured in minutes.

As a result, service models fail to keep up with the pace of change and do not deliver the expected benefits. IT organizations no longer understand how their business services are delivered, resulting in poor quality and reduced efficiency.
In contrast to infrastructure-driven approaches, ServiceWatch starts with the business service.

Beginning with a service access point, such as a URL, ServiceWatch drills down surgically through the underlying IT infrastructure to identify and reverse engineer the architecture of components that make up that service and how those components are related.

Unlike traditional approaches that try to collect detailed information about all the components in a data center, ServiceWatch only discovers and models components that are part of a business service.

This unique, intelligent approach eliminates irrelevant and distracting data – and creates accurate service maps in minutes, rather than the weeks needed for manual mapping.

The benefits are immediate – improved service quality, simplified change management, and increased IT efficiency.
ServiceWatch gives complete, cross-domain service visibility. It automatically builds an end-to-end view of the service and its supporting applications, servers, storage and networks.

With ServiceWatch, IT staff no longer have to normalize and reconcile data across multiple sources to create service mapping. ServiceWatch models are self-maintained and complete, providing information that is fully normalized, reconciled, and ready to be used by your IT operations team.

ServiceWatch discovery is also agentless, eliminating the significant effort required to install and maintain large numbers of agents across increasingly complex IT infrastructures. ServiceWatch does not perform packet inspection to create or maintain accurate service mapping, ensuring that customer and user data remains secure.
Unlike conventional approaches, ServiceWatch is an agile tool specifically designed for virtualized and cloud infrastructures. ServiceWatch provides complete visibility of your dynamic infrastructure – and of how it supports your business services.

To do this, ServiceWatch connects directly to cloud and virtualization management systems from vendors such as VMware and others. It discovers dynamic infrastructure as it is created and modified, updating affected service models in real time.

For example, ServiceWatch intercepts vMotion events from VMware’s vCenter and uses these to update service model topologies. It also tracks changes in other dynamic IT components, such as load balancers, and integrates these changes into its service models as they occur.
ServiceWatch includes a built-in knowledge base, providing deep insights into major IT vendor technologies. This goes far beyond simple vendor data collection, letting ServiceWatch determine how these technologies work and connect to each other.

ServiceWatch uses this knowledge base when building its maps, both to model IT components and the service connections between them. This is the main reason why it can produce accurate service maps in minutes.

This intelligence also extends to the mapping of shared or flow control type of infrastructure. For example, ServiceWatch is able to track business service flows across common components such as WebSphere Message Broker, deducing the correct flow based on the context provided by the initial service access point.
ServiceWatch tracks your IT infrastructure and modifies service maps as changes occur. As a result, your service maps always accurately reflect current infrastructure and how it delivers your business services. This provides many important benefits:

- Service maps accelerate resolution of service health issues by rapidly isolating problems—such as an overloaded server or application.
- When an IT infrastructure issue occurs, service maps identify the affected services—allowing the incident to be prioritized by business impact, not just IT impact.
- The impact of proposed changes can be evaluated using service maps, reducing the number of change-related business issues.
- Topology changes are tracked historically so a change manager can easily compare current to past topologies, enabling better tracking of unplanned changes and confirming proper implementation of planned changes.
- Service maps enable better business continuity. They identify all of the IT components that must be replicated to ensure continued service delivery.
ServiceWatch’s service maps are always accurate and up-to-date and, as expected, they can be accessed easily within the ServiceNow CMDB. You can leverage accurate service maps across the entire ServiceNow platform, including incident, problem and change management.

- Get accurate, real-time visibility of all of your business services.
- Rapidly isolate service issues and resolve them more quickly.
- Prioritize resolution of infrastructure issues based on their true business and service impact.
- Plan changes more efficiently, and understand their exact business impact before they are made.
- Detect and fix unplanned or incorrect changes as soon as they occur.
ServiceNow offers applications in the areas of Service Management, Business Management and Operations Management (ITOM). These applications use the same data model and code base. Because all applications are built on the same platform, all metrics, tasks, services, CIs and assets, people, locations and information are stored together creating a single system of record for IT.

ServiceNow ITOM is composed of three use cases to help customers improve the delivery and assurance of enterprise services.

- Service Assurance: combine the power of event management and analytics to assure business service performance and availability
- Service Delivery: speed and automates delivery of infrastructure and services to the business
- Service Mapping: inspects and discovers services in operation and maps their relationships and dependencies. Through service mapping, customers become “service-aware” and can dramatically increase service availability as well as reduce the cost of delivering services to the business…the main product comprising this use case is what we will be discussing in this Solutions Brief--ServiceWatch.
In today’s dynamic IT and business environments, it is more important than ever to have real-time visibility of how business services are delivered. Not only do agile, high-quality services underpin business success, they also drive down IT costs.

Conventional approaches to modeling business services, however, have many challenges, are expensive, and fail to keep up with the increasing pace of change. As a result, IT organizations face both service quality issues and spiraling costs.

ServiceNow ServiceWatch provides a solution to this critical problem. By providing real-time, accurate service model information to your IT operations team, it accelerates resolution of service problems, allows issues to be intelligently prioritized, and enables more streamlined and robust change management. The result is higher service quality, lower costs – and better business.