Now on Now:
How we use HAM to Streamline and Automate the ITAM Process in IT and Cloud Hosting
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Introduction

In these rapidly changing times—with business models, operating models, and workforce paradigms shifting dramatically—it’s critically important to have visibility into the hardware, software, and cloud resources in the IT environment, including the many home offices. This visibility is essential for optimizing IT spend, surfacing risks, and improving speed, efficiency, and employee productivity.

This case study will share examples of how we are using ServiceNow® Hardware Asset Management (HAM) on both the IT and Cloud hosting sides of our business.

Section 1: Information Technology

Challenges

Asset management is very dynamic, and it’s critical that we adjust quickly to changes. There’s no better example than the COVID-19 pandemic, which introduced multiple challenges:

- **COVID-19 Work from Home** – ServiceNow has been fortunate to be able to make the shift from a primarily office-based workforce to virtually all-remote. But that shift brought new challenges in how we manage our assets.
- **Dependency on Internal Resources** – In the past we relied on our internal IT staff to respond to user requests, such as computer refreshes and laptops for new hires. With much of our IT staff now working remotely, we needed to rethink that process.
- **Onsite Inventory Management** – In order for our IT staff to provided assets to our growing workforce—most of which was office-based at the beginning of 2020—we had built up local inventories of laptops and other equipment. When COVID-19 hit, managing those inventories became difficult and time-consuming.
We needed to create a faster, automated way to deliver assets, and to do that, we turned to our own Now Platform®.

**Hardware Lifecycle Processes**

ServiceNow HAM provides visibility throughout the entire asset lifecycle. When we implemented HAM, we redesigned vendor workflows, and streamlined and automated our lifecycle processes end to end.

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<th>Order</th>
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- **Order** – IT creates a catalog purchase request, which goes through financial approvals. A purchase order (PO) is cut and sent to the vendor.
- **Ship** – The vendor sends us an advance shipping notice, which is automatically associated with the PO.
- **Receive** – Once the hardware asset is received, the Technology Operations team acknowledges receipt. A record is automatically created in our asset repository. Fixed asset records are updated as well.
- **Deploy** – When new-hire laptops, replacement PCs, or loaners are deployed, the asset state is auto-updated.
- **Track** – Should the asset’s state change, for example, if a laptop is reported missing, the asset state is updated automatically.
- **Dispose** – We are fully integrated with our disposal vendor. An asset state and certificate of indemnification are automatically associated with the asset once disposal is complete.

One of the best examples of ServiceNow HAM in action is our Zero Touch delivery process for employee computers, which was implemented in 2020.

**Zero Touch Delivery**

Digital transformation is fundamentally changing how we deliver assets. To boost productivity and improve operational and financial efficiencies, we created streamlined asset delivery process called Zero Touch. Zero Touch automates the ordering, asset tagging, delivery, and setup of new hire and employee computer refresh orders. Everything is tracked and processed by the system.

**Ordering** – Every employee is eligible for a computer refresh after three years of use. The user goes to the Employee Portal, views the assets that are assigned to them, and can report an issue or—if the asset is beyond its retirement date—request a replacement. When they click Request a Replacement, they are taken to a list of available PC options. Once they select the model they want, they are shown the model specs and the PC that they are retiring. Since they are working from home, they then enter their delivery address and click submit.
Approval – If the employee is eligible for a refresh, the system approves the request automatically, notifies the employee that the order has been submitted and sends the request to the Value-Added Reseller (VAR).

Delivery – The VAR pulls an asset from their inventory and ships it to the employee along with a shipping label to return the old asset. Our system sends notifications to the employee when the laptop is shipped, and when it is delivered. The delivery notice asks the employee to confirm receipt. If the answer is Yes, the information is sent to Finance, and the depreciation process begins. If No, the system alerts the IT team to investigate.

Setup – We fully automated the setup process using the Now Platform and Microsoft Autopilot. When the employee logs in with their credentials, setup begins and only takes about 20 minutes.

Zero Touch Value Outcomes

- **Financial Efficiency** – Using Zero Touch, we save 30 days in depreciation and warranty expense on each asset. We project this will save $500K in 2021.
- **Operational Efficiency** – Automation saves 45 minutes per asset — an amount that really adds up. We estimate we will save 4,500 hours in the coming year. This is time that our IT staff can spend on the high-value work they were trained to do.
- **Speed** - The process is **90% faster** to start—and the faster the start, the faster the delivery to users, which means they can be productive more quickly.
- **Experience** – Even during a pandemic, employees get the laptops and equipment they need to be productive while working at home. This is especially important for new hires onboarded during work from home and creates a positive early impression of ServiceNow and its care for its employees.

Paris Release Enhancement: Hardware Normalization

Our Paris release includes Hardware Normalization, which greatly improves asset record accuracy. Hardware inventory data typically comes from multiple sources, which are not always consistent. For example, a 15-inch Apple Macbook Pro with the model number MD322LL/A might be listed as “Mac Book Pro 15 Apple” in one source, “MACbook pro 15-inch apple” in another, and “Mac-book Pro 15 appel” in yet another. As a result, identical assets and model categories could be recorded differently.

**Hardware Normalization** uses a product’s unique model number to normalize to one display name. It combines the product name, manufacturer, and model number, and aligns the models with those in the United Nations Standard Product and Services Code (UNSPC), which is the global standard for product recognition:
Hardware model data is normalized by the ServiceNow Content Library, which is updated weekly by our content team. Updates are sent to local libraries on our customer instances. In addition to normalizing the manufacturer, product, and model number in the asset record, the process auto-populates end of sale, end of support, end of extended support, and end of life. With this information we can proactively plan for hardware refreshes.

On the IT side, we’ve had very good success normalizing duplicate hardware models and achieved 90% visibility by the end of 2020.

Section 2: Cloud Hosting

Our Cloud Supply Chain Operations team provides end-to-end management of the cloud supply chain, from supply chain design all the way through fulfillment and delivery. The team is also responsible for hardware and software asset management. We have close to 30 physical data centers across the globe and maintain separate instances for Federal, Commercial, and Lab.

Using the Now Platform and ServiceNow HAM, we automated and integrated the hardware asset lifecycle, including full integration with our supply chain partners. We also identified several areas for continual improvement, such as inventory audit and asset disposal.

This section will also review Paris release features we implemented to further enhance our asset management.

Hardware Lifecycle Process

We review our hardware lifecycle management processes regularly to drive improvements and achieve tighter integration with our partners.

- **Order** – When a purchase request is submitted, it goes through financial approvals. A PO is then issued and sent to the vendor. The PO and asset information are synced with our instance, creating a receiving slip record. A notification with our asset shell information is sent to the vendor the same day.
- **Ship** – When the vendor ships the order, they send two sets of data to our system:
  - A ship rest API with shipment details triggers our system to create an advanced shipment notification to alert datacenter engineers to the upcoming shipment.
  - A device rest API sends all hardware build and test data and correlates it with our asset shell, which is then stored in our receiving slip.
- **Receive** – Once the shipment is delivered, our engineer validates the assets and acknowledges receipt with a single click. The system automatically creates asset records in our hardware asset table. Fixed asset records and the order received date sync with our financial system automatically.
- **Deploy** – Based on the device API data stored in the receiving slip, our capacity management team uses automation to auto-deploy the racks into production. Using Discovery, CMDB records are created and synced automatically with the hardware asset table. We also built automation to auto-populate the asset’s in-service date based on the customer instance provision action.
- **Track** – Until recently, audits were managed manually—a time-consuming and inefficient process. With the Paris release (see below) this step is now automated with our mobile inventory audit capabilities.
- **Dispose** – In the past, asset lifecycle activities were handled manually. Activities and information such as asset validation, disposal approval, asset retirement, and disposal
documents were captured in email and shared folders. The whole process was time-consuming, inefficient, and lacked traceability. With HAM asset lifecycle management workflow, this is no longer the case.

**Paris Release Enhancements**

With our Paris release we implemented three new HAM capabilities: Asset Inventory Audit (mobile), Asset Lifecycle Automation – Flow Designer, and Hardware Normalization. Because we used the Now Platform to run our entire HAM process, implementation was straightforward and fast—from development through production took only about six weeks!

- **Asset Inventory Audit (Mobile)** – Because of security requirements, we needed to find an alternate way for mobile scanning in our cloud production environment with a hand scanner. Thankfully, the flexibility of the Now Platform enabled us to build an effective workaround.

  As a result, we quickly locked our physical audit schedule and began audit task creation, to the great satisfaction of our data center engineers, asset management team, and accounting team. Data center audits are now much faster, and we project that this new capability will save about 360 hours annually.

- **Asset Lifecycle Management – Flow Designer** – This capability enabled us to build a workflow tailored to our asset lifecycle (resale) process. We created assignment groups, configured the app to automatically send email notifications to task owners and stakeholders, and changed retired date timing based on our company’s rules.

  Now, when asset disposal is confirmed, the system automatically triggers a workflow with all stakeholders to manage retirement activities, including asset validation, disposal approval, asset quoting, business award to vendor, pickup arrangement, and asset auto retirement. The workflow keeps all work records and disposal documents in one place, significantly reducing our compliance risks. Future
enhancements include enabling our data center engineers to validate retired physical assets using a newly established asset inventory audit.

This automated process also allows us to integrate with our buy-side partners. Future asset quotes, business awards, pick up coordination, asset receiving confirmation, and asset disposal reports will all be managed by this integration.

**Hardware Normalization** – Along with end user IT, we implemented hardware normalization for our data center, which works across our procurement instance. On the cloud hosting side of our business, we achieved 98% normalization recognition by the end of 2020.

There are some unique aspects to our implementation of Hardware Normalization. We are working to sync our financial system with the production instance model data. We also plan to integrate the model table with the data center bill of materials part number table. This will make manufacturer lifecycle details available to our engineering and sourcing team and accelerate decision making.

**Value Outcomes**

With the new features in the Paris release we have realized multiple benefits, including:

- Complete automation of our end-to-end asset management process, including inventory audit and disposal
- Full traceability throughout the asset lifecycle
- An increase in ITAM accuracy from 91% to 98%

**Closing Thoughts**

IT environments are highly dynamic and managing assets in those environments is an ongoing effort requiring vigilance, adaptability, and innovation. Like our customers, ServiceNow continues to take full advantage of the growing capabilities of the Now Platform to improve process efficiency, data accuracy, visibility, and employee productivity.

**To Learn More**

- Explore the [ServiceNow Hardware Asset Management](https://www.servicenow.com) web page.
- Browse the Community forum for [IT Asset Management](https://community.servicenow.com).

**About ServiceNow**

ServiceNow is making the world of work, work better for people. Our cloud-based platform and solutions deliver digital workflows that create great experiences and unlock productivity for employees and the enterprise. For more information, visit [www.servicenow.com](https://www.servicenow.com).

Now on Now is about how we use our own ServiceNow solutions to work faster, smarter, and better. With Now on Now, we’re achieving true end-to-end digital transformation. To learn more, go to [www.servicenow.com/nowonnow](https://www.servicenow.com/nowonnow).