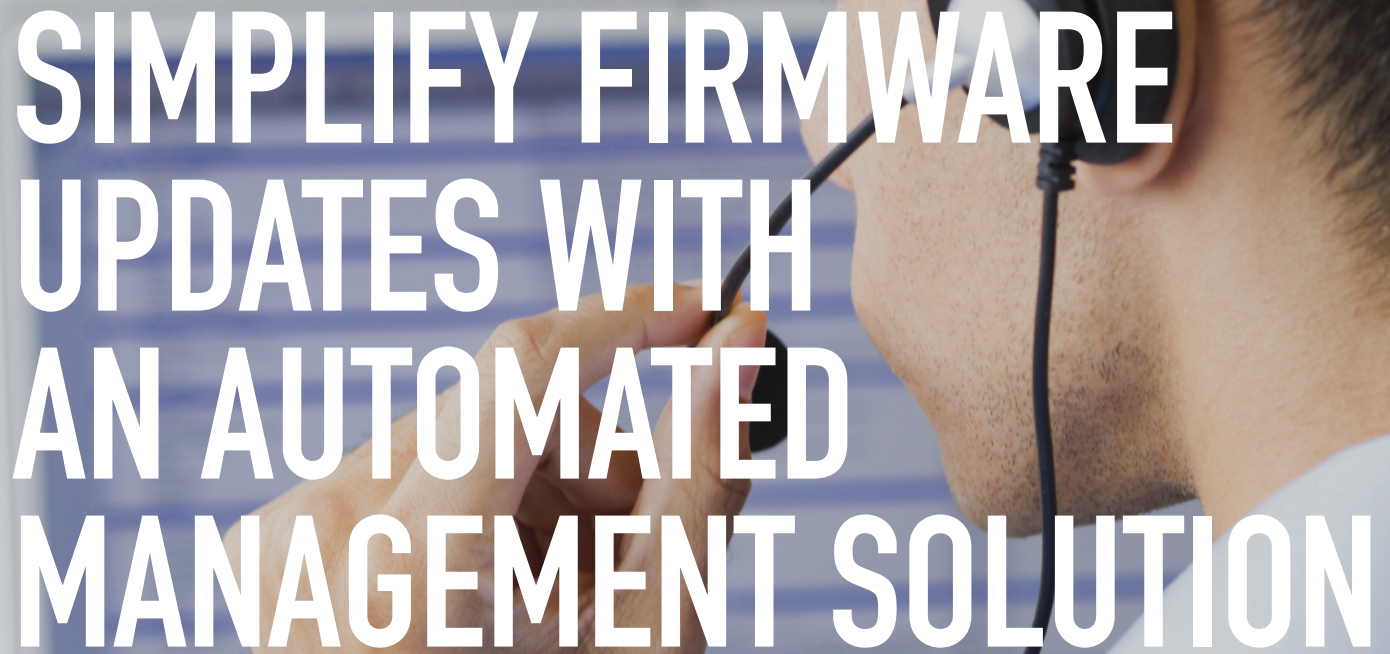


SOLUTION: FIRMWARE MANAGEMENT



# SIMPLIFY FIRMWARE UPDATES WITH AN AUTOMATED MANAGEMENT SOLUTION

**SCHEDULE AND MONITOR FIRMWARE UPDATES IN  
REAL-TIME TO REDUCE THE RISK OF SERVICE INTERRUPTION**

## **SOLUTION BENEFITS:**

**1**

Orchestrate bulk firmware updates with automated operations

**2**

Avoid service interruption with flexible scheduling options

**3**

Reduce human intervention with automated campaigns and on-boot updates

**4**

Enhance visibility throughout the entire firmware update process

**5**

Lower OPEX costs with pre- and post-update remote device management

# REDEFINE DEVICE FIRMWARE MANAGEMENT WITH SCHEDULED OPERATIONS AND AUTOMATED PROCESSES



As an ever-increasing number and variety of customer premises equipment (CPE) is continually released into market, operators around the world are struggling to organize and manage the number of firmware update packages required for each device iteration. But knowing what firmware packages are available and which devices require them is only the first in a number of challenges posed by end-to-end firmware management.

### Firmware Challenges

Orchestrating bulk firmware updates to multiple CPEs poses a risk to your customers' quality of experience. Unexpected service interruptions, bricked devices from firmware update failures, and a general lack of visibility into ongoing firmware management processes can all negatively affect the perception of service quality — significantly increasing the potential for subscriber churn.

Cumbersome manual processes to organize and ensure that correct firmware packages are distributed to your subscribers' devices

can drive up operational costs. Additionally, firmware failures and fault corrections can lead to expensive truck rolls — something every operator wants to avoid.

### What if you could eliminate these challenges and ensure the rapid, accurate orchestration of mass firmware updates?

The Incognito Firmware Management Solution offers exactly that. With complete visibility throughout the end-to-end firmware update process, you can use the Incognito solution to orchestrate automated firmware updates with an easy-to-use scheduling platform, allowing you to run firmware updates while reducing the risk of interrupting your subscribers' services.

With a configurable firmware-recipe library, you can organize and deploy firmware updates to subscriber devices based on numerous groups of criteria. From there, it's a simple process of selecting which firmware package a device requires — whether it's a firmware upgrade or downgrade — and scheduling the automated update process during times of low service usage.

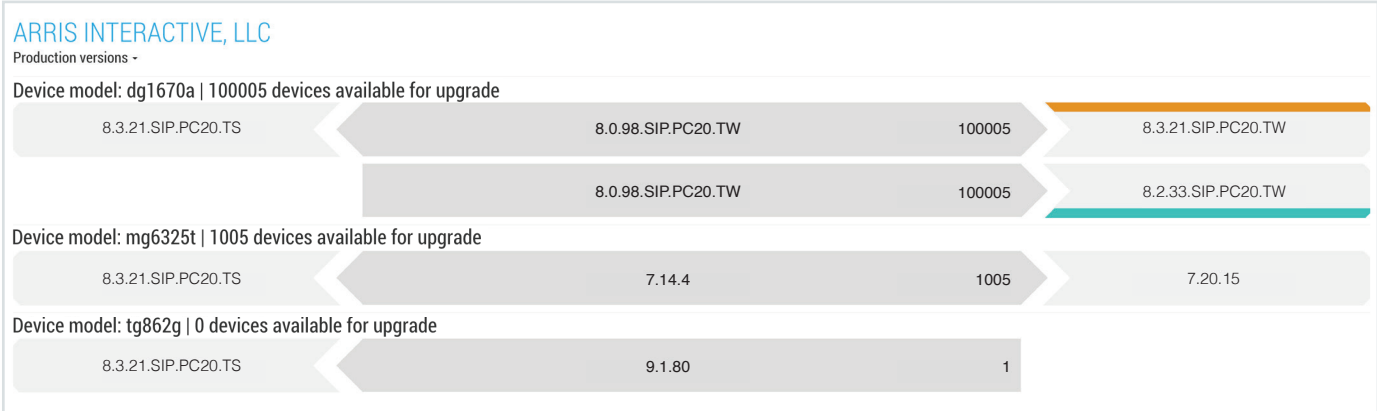


Figure 1: Simplify firmware updates with a view of all available upgrade or downgrade paths for each vendor device model

## See the End-to-End Firmware Update Process, Even During an Update

During the update process, you receive live updates of successes and failures, and can correct issues on-the-fly before restarting the firmware update process remotely. Once a bulk update is complete, you retain complete insight into which devices were successful and which devices encountered unexpected firmware issues, which can result from accidental subscriber interference. The intuitive remote management platform cuts down on the

cumbersome processes required to fix device issues, reducing the need for costly customer site visits.

With the Incognito Firmware Management Solution, you are able to redefine the way your organization manages firmware update packages. This ensures service quality remains high while reducing the associated costs of organizing firmware libraries, scheduling updates during off-peak hours, orchestrating automated firmware deployments, and solving unexpected device firmware issues.

# SOLUTION HIGHLIGHTS:

## Simplify the Organization of Your Firmware Update Library

Define single or multi-stage firmware management recipes for specific device groups and have them automatically detected when scheduling a firmware update. This vendor-agnostic firmware management solution shows you a complete list of all vendor devices that have update packages ready for deployment. You can access an up-to-date inventory of active devices in the network along with information about the make and model, firmware versions and any device that is on an unauthorized version of firmware. When executing upgrades or downgrades, you have complete control over how many devices you choose to update as well as the pace of updates, and gain the ability to create filters which enable the targeting of specific subscriber devices requiring a firmware package.

## Schedule Updates to Avoid Subscriber Service Interruption

The flexible scheduling options enabled by the Incognito solution allows you to run firmware update test groups to ensure a successful bulk update. You can choose specific dates and times to schedule a firmware update and specify the rate at which they are updated so that your subscribers' services are not affected by the management process. Updates to firmware can also be configured to occur automatically

once a device is provisioned into the network, ensuring that any new device is upgraded to the correct authorized firmware version before being deployed to the customer.

## Reduce OPEX Demands with Automated and Remote Firmware Management

Cut costs associated with organizing and orchestrating firmware updates with completely automated deployment processes including firmware updates upon initial device boot. Gain full remote management to reduce the operational costs resulting from expensive truck-rolls to resolve device issues. With the Incognito solution, you rest easier knowing that firmware updates take place, with or without administrator supervision.

## Gain Complete Visibility Throughout and Beyond the Firmware Update Process

See the end-to-end firmware management process, even while it's occurring. Monitor live firmware update successes and failures to reduce the risk of mass firmware management errors. Cut back on the time it takes to complete the entire firmware management process by resolving device firmware issues on-the-fly, ensuring lower rates of devices that require resolution post-update.



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# THE INCOGNITO PHILOSOPHY

Broadband service providers worldwide use Incognito products to solve their device provisioning, network intelligence, resource management and service activation challenges. In addition to helping you increase operational efficiency and monetize IP-based services, Incognito also delivers:

## **Flexible Modular Solutions.**

Get software solutions that fit your needs, not the other way around. Our extensive toolkits and experienced integration experts ensure that you can easily integrate any Incognito solution into your existing systems.

## **Customer-Centric Approach.**

Be heard. We listen to and take your suggestions seriously. That's why 80% of new product features are a direct result of customer feedback.

## **Support Services.**

We're committed to your success. Our experienced professional services team can design custom solutions to suit your needs, while our support team is available 24/7 to answer your questions.