

## ■ NetSupport™

### Innovative Suite of Technical Support Services

NetSupport from UpdateLogic is a suite of embedded software utilities and technical support services that provide an efficient and cost effective solution for diagnosing and troubleshooting consumer electronic devices, specifically televisions.

The complexity of today's digital television has increased significantly as a result of the integration of Internet connectivity, streaming media services, "app store" middleware platforms, 3D rendering, and a plethora of third-party value-add services. These increasingly complex devices introduce a host of new support challenges which can add tremendous cost to the support and service organization.

### Higher Level of Service

NetSupport enables the support organization to provide a higher level of service that enhances the consumer experience, improves customer satisfaction, and elevates brand image while driving down service costs and improving profitability. NetSupport consists of two components called NetResolve™ and NetConnect™.

## ■ NetResolve™

### Automated Problem Resolution

One of the biggest challenges for consumers, and most frequent reasons for technical support calls, is simply setting up the TV and connecting it to the Internet. NetResolve is a pre-installed embedded troubleshooting engine that helps the consumer resolve issues themselves. NetResolve scans the device configuration and looks for wired or wireless networks, security keys, IP addresses, link speed, firewalls, etc. and takes the necessary steps to establish an Internet connection. For situations that require user action to resolve, the consumer is provided with simple step-by-step instructions, diagrams, or even how-to videos that assist in correcting the problem. NetResolve enhances the out-of-box-experience by solving installation issues before they result in a call to technical support or product return.

### Dynamic Intelligence

NetResolve provides troubleshooting support beyond just the initial installation. NetResolve continuously monitors the system and provides assistance in a broad range of areas. In fact, NetResolve has dynamic intelligence that enables manufacturers to update the database with hot fixes to newly discovered issues even prior to the release of a software update. This helps control spikes in call center activity by providing a method to communicate work-arounds for known issues. The result is a happier customer, fewer calls for assistance, and lower support costs.

## ■ NetConnect™

### Interactive Technical Support Sessions

NetConnect is an interactive remote service management system which enables technicians to conduct a live Internet-connected support session with the consumer's TV (similar to a PC remote desktop session). With the consumer's permission, the technician can engage in a virtual on-site support session to view and take control of the consumer's device, operate the remote control, run system diagnostics, listen to the audio stream and most importantly, view the device's video output.



*NetConnect enables technicians to view the device output, operate the remote control, and run diagnostics in a remote technical support session.*

### Reduced Call Time

Using NetConnect, the support technician can quickly and accurately diagnose the problem by seeing the video output and running system diagnostics rather than having the consumer try to describe the issue. NetConnect expedites the call by allowing the technician to operate the controls and solve the problem rather than having to relay instructions to the consumer. Most problems are solved in a fraction of the time it would take without NetConnect.

### Fewer Repeat Incidents

NetConnect's *virtual classroom* allows the technician to display a replica of the consumer's remote control on the screen so the consumer can watch the step-by-step process the technician is using to resolve the issue. As such, the consumer learns from the experience and becomes more comfortable and knowledgeable about the device – and perhaps able to resolve future problems without technical support.

### Efficient Service Calls

NetConnect enables the technician to retrieve a listing of key device components in the event a hardware fix is necessary. This data is valuable for ensuring that the right parts are available if a service truck is dispatched to the home or the consumer sends their device to a repair facility. This avoids costly double service calls or unnecessary delays for out-of-stock parts.

NetSupport™ provides a higher level of service that results in increased revenue opportunities, improved customer satisfaction and lower support costs.

## NetSupport Highlights

Automated Problem Resolution	NetResolve is an embedded diagnostic utility that helps with initial set-up by scanning the device configuration and automatically resolving common Internet connection issues. Once connected, NetResolve continues to monitor the system and troubleshoot any service issues.
Interactive Technical Support Sessions	NetConnect enables support technicians to establish a live remote support session (similar to a PC remote desktop session, except for TVs). The technician can view and take control of the consumer's device, operate the remote control, listen to and view the device's audio/video output, and run system diagnostics.
Reduced Call Time	Using NetConnect, the support technician can quickly and accurately diagnose the problem and operate the controls remotely to solve the problem rather than having to relay instructions to the consumer. Service calls are completed in a fraction of the time. Shorter call times means more calls can be handled by the call center and there are shorter hold times.
Efficient Service Calls	NetConnect enables the technician to retrieve a listing of device components in the event a hardware fix is necessary. This data is valuable for ensuring that the right parts are available when a service truck is dispatched or the consumer sends their device to a repair facility.
Fewer Repeat Incidents	NetConnect's <i>virtual classroom</i> capability displays a replica of the remote control on the screen so the consumer can learn the process the technician is using to resolve the issue. The consumer becomes more knowledgeable and can resolve future problems without technical support.
Differentiated Product Features	NetSupport provides innovative support tools and a higher level of service that differentiates products from their competition. These features can be called out in product materials and can be a point of distinction in side-by-side product reviews.
Incremental Service Plan Revenues	NetSupport's unique service capabilities help justify the cost of extended service plans and can result in a significantly higher attach rate.
Accessory Upgrades	NetResolve scans the device and identifies common configuration issues. NetResolve can suggest upgrades such as HDMI cables, network routers, universal remotes, Blu-ray disc, or service plan extensions.
Improved Customer Satisfaction	NetSupport's innovative support tools provide a higher level of service that enhances the consumer experience, improves customer satisfaction, and elevates the manufacturer's brand image.

## About UpdateLogic

UpdateLogic is the world's leading software management services provider for consumer electronic devices. UpdateLogic provides DRM provisioning, software and firmware updates, device data retrieval, and remotely-controlled technical support sessions for connected TVs, Blu-ray players and other Internet-ready CE devices. UpdateLogic services are used by 5 of the top 10 DTV manufacturers including Vizio, Sony, Sanyo, Mitsubishi, and Funai (maker of Philips, Magnavox, Sylvania, Emerson brands), and is embedded into the firmware of 7 of the top 7 independent DTV chip makers including Broadcom, MediaTek, Zoran, Trident/NXP, Renesas/NEC Semiconductor, Toshiba Semiconductor, and Panasonic Semiconductor.



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