Qterics® Device Management Services

Qterics® - A UEI Company









QuickSet™ - Device Discovery and Control

OUR CUSTOMERS

Smart TV: Samsung, LG, Sony

MSOs: Comcast, Cox, AT&T, Dish, Charter, Sky, etc.

AV: Sony, Denon, Bose

Others: Sling, Microsoft, Xbox, etc.







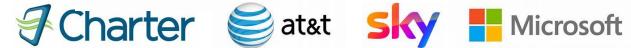
































Qterics® Device Management

OUR CUSTOMERS

Smart TV: Vizio, Sony, Sharp, Hisense, TCL, LG, Vestel

SoCs: MediaTek, Mstar, Realtek, NovaTek

ODMs: Changhong, THTF, Konka, Compal, Amtran





























Customer Support - The Challenge

Customer Care costs are staggering and growing

- Over \$2B per/year support costs
- Estimated **30-35**% expense reduction possible
- Up to 40% of truck rolls are unnecessary

Customer Experience Growing in Complexity

- Multiple content sources Linear, Smart TV, OTT, On-demand
- Advanced interactive features, Apps, Web Apps
- Countless Internet applications



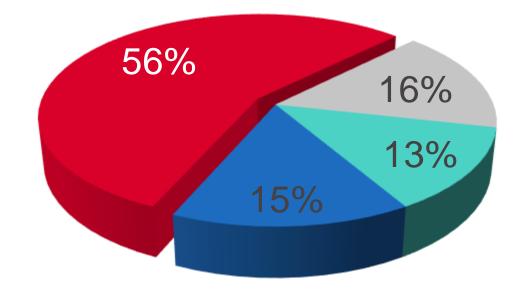


SupportView addresses these challenges



Customer Support - The Challenge

Operational Support Costs (MSO)

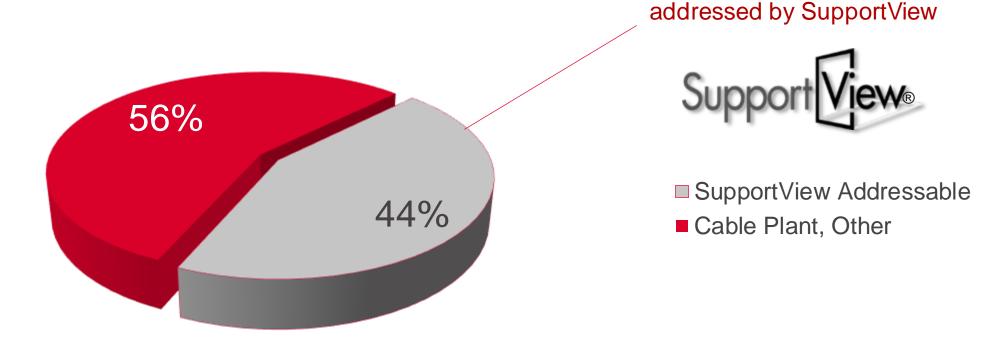


- Avoidable Truck Rolls
- Repeat Truck Rolls & Calls
- Installation Related Issues
- Cable Plant, Other



Customer Support - The Challenge

Operational Support Costs





Qterics Services

- SupportView Remote Support
- SupportCam Remote Photo Sharing
- OTA Software Update
- DRM In-field Provisioning





OTA Software Update

- Secure
 - Device/Server authentication
 - Payload encryption
- Advanced Management Capabilities
 - Targeted device distribution (Device groups, Geography)
 - Extensive device reporting
- Content Provider approved service
 - Netflix and Amazon VOD certified
 - Meets Google Robustness Rules
- Global Service Coverage











OTA Software Update

- Advanced Device Targeting Capabilities
 - Update a single device, a group, or a specific quantity
 - Update devices by geography, version number
- Differential and sequential updates
- Phased rollouts
 - Set maximum distribution quantity to limit risk
 - · Increase over time as confidence grows
- Easy-to-use, web-based administrative interface
 - Extensive Device Reporting
- Global Service Coverage
 - · Global Content Delivery Network





DRM In-field Provisioning Service

- Secure, Device-specific, Object Payload Delivery
 - Deliver DRM keys, security certificates, etc.
- Simplified DRM Key Management
 - Streamline factory certificate/key provisioning
 - Minimize factory provisioning errors
 - Manufacture/ship devices before certification complete
- In-field Device Management
 - Enable new streaming services
 - Resolve corrupt, duplicate, or missing certs and key issues
 - Revoke and re-provision compromised keys
- Netflix and Google approved Services
- Global service coverage







Over 500 million provisioned keys to date



SupportView Remote Support

- Remote Device Management
 - Remote screen viewing
 - Remote device control
 - Remote diagnostics & troubleshooting
 - Remote manufacturing testing
- Enhanced Customer Experience
 - Improved Customer Satisfaction (higher Net Promo
 - Customer Support and Training
- Lower Support Costs
 - Reduce Product Returns and Truck Rolls



SupportView-enabled Devices

Support View



SupportView CSR Interface

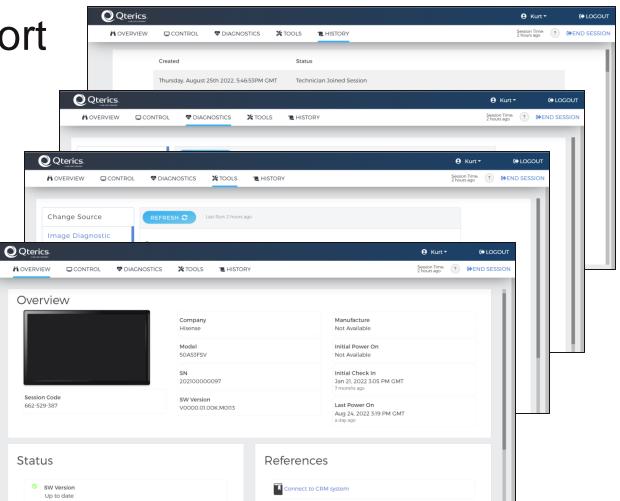




SupportView® - Remote Support



Put your customer service agent "virtually in the house"







SupportView® - Remote Support

SupportView™ Capabilities

- View the consumer's TV screen
- Navigate the TV menu
- ☐ Edit settings from the virtual remote
- □ Edit settings using shortcuts
- □ Run diagnostics
- Upload device logs and config files
- ☐ Perform software update
- ☐ Train user "how to"
- □ Pull the TV's ESN, Mac, etc
- Run network diagnostics
- View/adjust picture settings
- View/adjust the audio inputs/outputs
- □ Change the input/source
- □ Display the remote control on the TV screen
- Run sound diagnostics
- Do a factory reset
- Upload the TV config file
- View the device history



"virtually in the consumer's home"



SupportView Friends & Family

Support View

Cost Elimination

- SupportView F&F designed for consumer use
 - Friends and Family helping each other (leverage the "first call")
 - · Simple to use with NO fee to consumer
 - Eliminates the call to the manufacturer (100% cost reduction)

Product differentiator

Product feature for elderly consumer - support by friends and family





Leverage the "first call" to friends & family

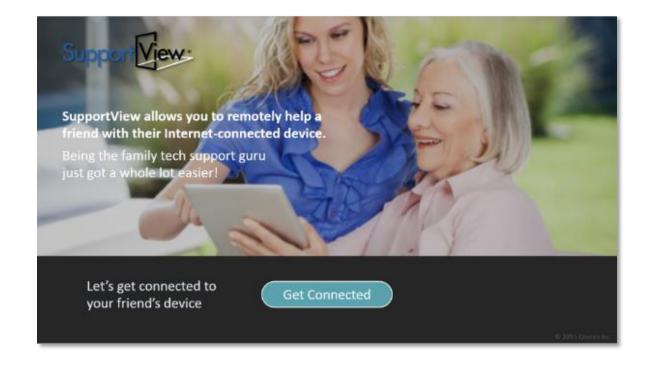


SupportView Friends & Family



Benefits

- Improved Customer Satisfaction
 - More comfortable support experience
 - Simple to use with "no" fee to consumer
- Cost Reduction
 - Eliminates the cost of a tech support call to OEM
- Product Differentiator
 - Advanced technical support capability
 - Excellent for elderly consumers





SupportCam Remote Photo Sharing



- Remote Photo Sharing
 - Consumer photo sharing with tech support
 - Customer can snap, mark up, and share photos
 - Tech can respond with edited photos
- Improved Customer Experience
 - More precise customer communication
 - Improved Customer Satisfaction (higher Net Promoter Scores)
- Lower Support Costs
 - Faster Problem Resolution
 - Reduce Product Returns and Truck Rolls

