HCL

PRIME HOME 6.3
DATA SHEET

Table of Contents

DATA SHEET

The proliferation of Internet-connected devices and the explosion of video and data traffic are driving complexity in the home network. Increasing numbers of new devices need to be installed and provisioned, and multiple devices running multiple applications often create resource contention within the home. These factors trigger support calls and truck rolls for the service provider, and automating and simplifying management of customer premises equipment (CPE) in home networks has become mission critical.

This creates both challenges and opportunities for service providers. While they are looking for ways to lower operating expenses and improve customer satisfaction, they are also looking to quickly deliver new and differentiated services and drive new consumer revenue opportunities. Service providers face high new customer acquisition costs, and the increase in consumer choice for broadband (DSL, cable, 3G/4G, satellite, and fiber) and over-the-top services from nontraditional providers is driving intense competition for subscriber share-of-wallet

Product Overview

HCL Prime Home is a proven feature-rich, standards-based remote management solution that discovers connected home devices and provides visibility into the home network for broadband service providers. It has a TR-069 Auto Configuration Server (ACS), easy to use web portal, and a lot more. Powerful customer support and operator tools, zero touch device provisioning, bulk operations, and easy integration combine to make the home network easier to set up, manage, and support. This can result in reduced operational costs and an improved customer experience.

Based on the Broadband Forum's TR-069 suite of protocols for provisioning and managing in-home devices, HCL Prime Home discovers detailed information about all connected devices in the home, enabling customer support agents to troubleshoot common home networking problems such as Wi-Fi, firewall, and basic broadband connectivity. The HCL Prime Home platform provides these capabilities in a way that is easily integrated into the existing service provider systems using web-based APIs.

- **Multidevice management:** The TR-069-compliant auto configuration server provides management from the network to the gateway and into the home. While the gateway is becoming an increasingly important device and control point for service providers, TR-069 can reach beyond the gateway and provide management for IP set-top boxes, next-generation converged IP set-top boxes, Network Attached Storage (NAS), femtocells, IP phones, powerline adapters, IP cameras, and more. HCL Prime Home provides deep operational visibility into these devices and the network behind them.

- **Automated remote device management functions:** HCL Prime Home allows service providers to proactively manage and maintain gateway and network health and improve operational efficiency with simplified, automated remote management on both an individual device and multidevice basis. These capabilities include the following: zero-touch provisioning, remote

configuration and configuration updates, software (including firmware) upgrades, real-time problem diagnosis, and troubleshooting of common home networking problems such as Wi-Fi, firewall, and basic broadband connectivity of devices in the home. Bulk operations help service providers lower the cost of deploying and maintaining large numbers of subscriber devices.

- **Actionable information:** HCL Prime Home discovers detailed information about the devices in the home such as online/offline status, wireless signal strength, in-home bandwidth usage, and device manufacturer. The solution abstracts this information into the cloud and provides it to both service providers and subscribers through easy-to-use web portals – rendering the information actionable. This, in turn, reduces support calls and truck rolls, lowering operating expenses.

- **Report builder:** HCL Prime Home Reports supports better business decisions by providing greater visibility into home network usage and activity, home network characteristics, and service utilization. The solution allows creation of professional reports and charts for a wide array of subscriber and device information.

- **Highly usable, modular, and customizable human interface:** A wide range of HCL Prime Home management tools is provided in the form of portlets that are easily added to the web portal, creating a modular and customizable user interface. HCL Prime Home also supports a structured problem-solving approach that guides the customer care representatives through predefined processes

- **Configurable threshold-based alerts and workflows:** HCL Prime Home supports creating and scheduling procedures (workflows) in real time. The system also proactively alerts the CSR to current or possible CPE malfunctions - for example, high noise level, frequent WAN disconnects, abnormal wireless access attempts, and video on demand (VoD) malfunctions. Armed with this information, the CSR can then take action to minimize potential impact to subscribers.

- **Easy integration into existing service provider systems:** Web-based APIs promote ease of integration into service provider OSS/BSS systems.

- **Deployment options:** HCL Prime Home is available for onsite deployment in a service provider network or may be hosted by HCL. The latter is a service-based offering with a usage-based billing model that eliminates upfront capital expenditures, reduces recurring operational costs, and speeds deployment.

TECHNICAL DATA SHEET

Table 1. Features and Benefits

Feature	Description and Benefit
Management Protocol and Device Support	
TR-069 for multidevice, multiprotocol management	Until recently, service providers have had limited visibility into the home network behind the typical gateway or modem. HCL Prime Home provides deep operational visibility into a wide variety of devices in the home and the network behind them using TR-069. All devices managed with TR-069 have a well-defined data model associated with them. The data model is the set of common management objects for a given CPE device type that are remotely accessible by HCL Prime Home for provisioning, device management, and service delivery. These include: • Residential Gateways TR-098 • IP Phones TR-104 • Set-top Boxes TR-135 • Network Attached Storage TR-140 • Femtocells TR-196 • HCL Prime Home also supports important management frameworks such as those defined in TR-111 and TR-157.
Integration with other management protocols	Through flexible management endpoints and an API, HCL Prime Home can provide additional management protocol interfaces such as SNMP and OMA-DM for mobile and legacy device support.
Support for legacy devices	HCL Prime Home supports HTTP and configuration file-based management for legacy non-TR-069 devices.
IPv6 support	The solution supports IPv6 compliant devices.
Remote Management and Platform Tools	
Zero-touch provisioning	HCL Prime Home provides remote automated provisioning of complex CPE, reducing the rate of costly truck rolls and support calls.
Consumer device discovery	HCL Prime Home discovers detailed information about the devices in the home such as online/offline status, wireless signal strength, and device manufacturer.

Feature	Description and Benefit
Real-time problem diagnosis and troubleshooting of common home networking problems	HCL Prime Home helps simplify diagnosis and resolution of common home networking problems such as Wi-Fi, firewall, and basic broadband connectivity of devices in the home.
Restoration of device configuration	CPE configuration is stored in the cloud, allowing for automatic restoration of home network settings if the device is factory defaulted or is replaced.
CPE software upgrades	HCL Prime Home allows easy updating of software, including firmware upgrades and downgrades.
Bandwidth monitoring	HCL Prime Home measures bandwidth used for the whole home as well as for each individual device inside the home, which is useful to: • Diagnose speed contention (for example, personal computer versus Xbox versus webcam) • Inform subscribers of usage against monthly caps and how to optimize
Captive portal	Automatic browser redirection for LAN devices is useful for troubleshooting, service alerts for late bill payers, marketing messaging, and more.
Workflow engine	HCL Prime Home allows the service provider to build event-driven management policies, resulting in customized device interactions for a variety of scenarios such as initial contact, reboot, or as a standard maintenance procedure.
Multidevice management with bulk operations	HCL Prime Home manages both at the individual device and multi-device level, greatly saving administrative overhead time and expense. For bulk operations, labeling provides easy grouping of devices and subscribers, a scheduling mechanism simplifies user activities, and status reports allow easy progress tracking. Integration with HCL Prime Home Analytics allows for intelligent selection of devices for bulk operations.
Auditing	Audit tools help enable the administrator or customer service representative (CSR) to view a history of changes related to a device or subscriber, including who initiated the changes and specifically what was changed. This is useful for accountability tracking and for identification of problems caused by user error.

Feature	Description and Benefit
Domain separation	Domain separation allows the service provider to segment out devices, subscribers, and CSRs into groups based on region, market, or other characteristics for operational efficiency.
HCL Prime Home Software Development Kit (SDK)	The HCL Prime Home SDK allows service providers and application developers to create custom actions and services using the HCL Prime Home interoperability library, custom scripts, and standard user interface libraries. The SDK shortens time to market for managing new devices and offering new consumer services.
Managed Wi-Fi Features	
Activation	HCL Prime Home can help enable Wi-Fi service globally and on an individual subscriber basis. Default security can be configured to match client setup instructions.
Configuration	Wi-Fi settings can be configured remotely in the CSR and consumer portals once enabled in HCL Prime Home. Users can customize the channel, service set identifier (SSID), and security type and can set up a multiple SSID or dual-band network. The consumer portal replaces the complex local user interface with simple configuration tools and is remotely accessible so changes can be made from anywhere.
Wi-Fi signal monitoring	Wi-Fi signal monitoring is viewable in both the CSR and consumer portals and shows signal strength for each Wi-Fi device in the home network (based on received signal strength from the access point), which is useful for diagnosing "slow connect" issues in the home.
Mobile offload and guest Wi-Fi support	HCL Prime Home addresses the growing trend of mobile offload to Wi-Fi through improved Wi-Fi performance diagnostics and troubleshooting tools for tablets and smartphones. The solution can also help enable and manage multiple secure networks over a single Wi-Fi gateway, making it easier for service providers to offer "guest Wi-Fi" applications in a scalable, managed way.
Multiband Wi-Fi	HCL Prime Home supports multiband Wi-Fi devices and allows configuration of multiple SSIDs across different radios.
Managed Firewall	

Feature	Description and Benefit
Port forwarding configuration	HCL Prime Home helps enables popular multiplayer games, media devices, remote access, and messaging applications to work seamlessly through pull-down menus. Custom-defined port forwarding configurations for advanced users are also available.
Parental Control Services	
Dynamic content filtering	Dynamic content filtering provides consumers the ability to create a specific list of websites that are allowed or blocked for each individual device in the home and includes profile-based dynamic content filtering services.
Time blocking	Time blocking allows consumers to specify periods of times of day and amounts of time for Internet access (whole home and per device).
HCL Prime Home Reports	
Intuitive report generation tool	HCL Prime Home Analytics provides a way for service providers to aggregate, view, and export subscriber and device data. The application collects data from any TR-069 device and uses the HCL Prime Home platform to add more visibility into the broadband subscriber base. HCL Prime Home Analytics includes built-in predefined reports and allows custom report creation. The application also includes drag-and-drop report fields and output columns for ease of use.
Essential use cases	With greater visibility into the broadband subscriber base, service providers can use the information to: • Drive additional services penetration through direct marketing of new offerings • Facilitate operational activities such as migrations and upgrades • Create targeted sales programs that auto-enable trials for top customers and drive customer awareness
Consumer and CSR Portals	

Feature	Description and Benefit
Consumer portal	The HCL Prime Home web-based consumer portal provides a complete view of the home network - with both historic and live data - along with access to a variety of configuration tools and data services. No software is required on any consumer device, and the portal is accessible anywhere in the world through a browser or mobile application.
	By providing the subscriber with actionable information and the ability to more easily troubleshoot problems, a majority of support calls are eliminated, helping to drive customer satisfaction.
CSR portal	The CSR portal provides a complete diagnostic view of the devices inside the home, enabling CSRs to access device information in real time and to discover and diagnose major problems as soon as they occur. Dashboard data is available at all levels - for one specific device or a population of millions of units. User roles, permissions, and views are fully customizable by the administrator.
View Local Interfaces for LAN Devices	
Consumer device click-through	Provides one-click remote setup and access to view local interfaces for LAN devices (in both the CSR and consumer web portals). Devices include web cameras, printers, storage devices, and more. Consumer device click-through does not interfere with LAN device security, and the port and URL path are customized.
Integration with Service Provider Systems and Broad Technology Support	
Broad support across network technologies	HCL Prime Home may be deployed in a variety of service provider networks, including DSL, cable, FTTH, Ethernet, WiMax, and satellite.
Flexible northbound interface for system integrations	HCL Prime Home can be easily and securely integrated into a service provider's existing operations support systems and business support systems (OSS/BSS) through its northbound interface (NBI) using flexible and lightweight web-based APIs (RESTful Services). This allows service providers to use existing investments and seamlessly connect HCL Prime Home to the network infrastructure.
Applications SDK	The HCL Prime Home applications SDK helps enable third-party devices and services.
Hosted Deployment and Usage-Based Billing	

Feature	Description and Benefit
Hosted solution	HCL Prime Home service may be hosted by HCL whereby no server hardware is required from the service provider. This deployment option offers a "pay-as-you-grow" license model.
Usage-based billing model	HCL Prime Home is priced per managed device under an annual contract. Invoicing is based upon actual usage, precluding true-ups, renewals, prorating and set-up fees.

System Requirements

Table 2 lists system requirements for the HCL Prime Home management server. Table 3 lists system requirements for the HCL Prime Home database server.

Table 2. System Requirements for HCL Prime Home Management Server

Operating system	Red Hat Enterprise Linux 6.2 or higher and CentOS 6.2 or higher
Memory (RAM)	32 GB
CPU	6 or 8 Core Processor (RAM-dependent)
Storage	300 GB (Fiber or Fast Disk), 10,000 RPM

Table 3. System Requirements for HCL Prime Home Database Server*

Operating system	Red Hat Enterprise Linux 6.2 or higher and CentOS 6.2 or higher
Memory (RAM)	32 GB (48 GB preferred)
CPU	6 or 8 Core Processor
Storage	140 GB (Fiber or Fast Disk), 10,000 RPM
External storage	500+ GB

*Applies to on-site deployments only, per 500,000 managed devices.

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