



- **GUI-DRIVEN MANAGEMENT OF CISCO SSG, ISG & SCE**
- **SUBSCRIBER POLICY MANAGEMENT**
- **MULTI-SERVICE PRODUCT BUNDLING**
- **SUBSCRIBER MANAGEMENT**
- **USER SELF-PROVISIONING**
- **MULTI-SERVICE AUTHENTICATION & DHCP SERVICES**
- **STOREFRONT WITH DYNAMIC WEB-BASED CONTENT MANAGEMENT**
- **CUSTOMER CARE**
- **SERVICE & USER BASED BILLING SUPPORT**
- **CREDIT CARD & PMS PAYMENT PROCESSING**
- **REVENUE & USAGE REPORTING**
- **CARRIER CLASS REDUNDANT SYSTEM**
- **IMS / TISPAN COMPLIANT**

Powering the Intelligent IP Network™

The BroadHop Service Management Engine (SME) is a carrier-class network appliance that delivers out-of-the-box deployment solutions for IP multi-service delivery – including: broadband access (DSL/Cable/Ethernet/Wireless), Voice over IP, VOD, IPTV and Gaming. Through the Cisco Technology Developer Partner Program BroadHop provides a comprehensive service and policy management solution with pre-integrated interfaces to Cisco and other leading network equipment, providing real-time service activation and subscriber self-provisioning. Built-in storefront templates enable service providers to deploy new services in hours, not months – making today's generation of IP network infrastructure truly user-programmable.

BroadHop's Service Management Engine provides a Cisco-powered solution for defining, deploying and managing IP services, including: network component and authentication management, dynamic product catalog with QoS policy management, subscriber management and user self-provisioning, customer care, billing, payments and reporting – all from an easy to use Web-based administrative GUI

BroadHop's pricing model creates an economical entry point for IP Service Management and one that scales based on network size & subscriber volume - providing a carrier class solution for both established carriers and growing small to mid-size operators.

NETWORK EQUIPMENT INTEGRATION

GUI-based Network Component Configuration

- ▶ Auto-discovery and activation features

Cisco Systems

- ▶ SSG Direct Interface (2xxx, 3xxx, 7xxx, 10k)
- ▶ ISG Direct Interface
- ▶ SESM Interface
- ▶ SCE Interface

Other Equipment Providers

- ▶ Nomadix, Other
- ▶ Network plug-in interface for integrating other access gateways

NETWORK AUTHENTICATION AND ACCOUNTING

Network Authentication

- ▶ Multi-mode Authentication: Radius, MAC, EAP, PEAP
- ▶ Transparent auto-login (TAL)
- ▶ Internal multi-service Radius Server on-board
- ▶ External Radius Proxy for multi-SP/roaming authentication
- ▶ Wholesale and retail authentication support

Network Resource Management

- ▶ DHCP Relay functionality to External DHCP Servers

Multi-service Rating Engine

- ▶ High capacity rating engine for Multi-service SP applications
- ▶ Rating by User & Service
- ▶ RADIUS collector interface for use records

SERVICE CREATION & MANAGEMENT

Product Catalog

- ▶ Dynamic Service & Product Catalog
- ▶ Real time GUI-based service creation and management
- ▶ Time-based and Subscription Products, including Pre-paid options
- ▶ Quota-based services
- ▶ Voucher and Access Code Product options
- ▶ Product Bundling and Pricing

Parental Service Controls

- ▶ Sub-account creation & management for family members
- ▶ Daily & Weekly Time Limits
- ▶ Time of Day Restrictions
- ▶ Site restrictions
- ▶ Internet Allowance e-Wallet, charged to parent account
- ▶ Family Firewall and Security Service Management

Wholesale & Retail Service Support

- ▶ Supports Wholesale Service deployments for SPs & Venues
- ▶ Reseller self-management through extended Administration Console
- ▶ End-customer, self-managed hosted service offerings

QoS MANAGEMENT

Service Definition

- ▶ Service quality definitions on a per-Service basis
- ▶ "Best Effort" or "SLA" specification for each service
- ▶ Class (Priority) and bandwidth settings for SLA Services

Policy Manager and Control Engine Integration

- ▶ Cisco Service Control Engine (P-Cube) interface
- ▶ ISG Policy & Control Management Features
- ▶ Others - via BroadHop's open interface

STOREFRONT / PORTAL

- ▶ Ships with standard Templates for out-of-the-box deployment
- ▶ Web-based branding mgmt. at Service Provider, Venue, Enterprise levels
- ▶ "Click & Change" dynamic customization and no coding required
- ▶ Supports all standard browsers, PDAs, J2ME Apps

USER SELF-SUBSCRIPTION AND MANAGEMENT

- ▶ User selection and subscription to services
- ▶ Automated service activation and account billing update
- ▶ Service plan and billing management via Storefront

ENTERPRISE GUEST ACCESS AND SERVICE MGT.

- ▶ Time-based Guest Access and credentials to wired / wireless LAN
- ▶ Customizable Storefront enables Guest and Employee log-in
- ▶ Enterprise application access for authenticated employees
- ▶ Inter-office hoteling and profile-based access to corporate network
- ▶ Pre-paid / voucher generation

PAYMENTS AND BILLING INTEGRATION

Payment Modes

- ▶ Credit / Debit Card Payments
- ▶ Pre / Post paid solution built into BroadHop SME
- ▶ Integrated interfaces w/ VeriSign (PayFlow), Cybersource and Paymentech
- ▶ Configurable interface for other credit card processing systems
- ▶ Visa CISP Security Compliant

Bill to Account

- ▶ Generates service / user-based billing records
- ▶ Integrate with existing billing system through open API

eWallet

- ▶ Stored value e-wallet system on-board
- ▶ Bill to account or bill to credit card
- ▶ Re-chargable e-wallet through credit/debit card or bill to account

Billing and Back-office Integration

- ▶ Billing formats supported include: TAP, Ciber, IPDR, other
- ▶ Open web services interface for CRM and billing integration
- ▶ DataBus Integration with Vitria, TIBCO, others

CUSTOMER SERVICE SUPPORT

- ▶ Enables CSR and Help Desk personnel to troubleshoot and resolve user support calls – account lookups by name, zip, account number, user name
- ▶ Supports service activation, account and information management, account queries and credits by CSR
- ▶ Account suspension and cancellation
- ▶ Remove malicious users from network access

ADMINISTRATION AND SECURITY

- ▶ Role-based administrative security heirarchy
- ▶ Admin Users created by Location, Role, Service Provider
- ▶ User Permission Management ensures network and data security
- ▶ User based event activity logging
- ▶ All connections SSL based and encrypted
- ▶ Strong encryption of all sensitive data

REPORTING

- ▶ Service Usage and Revenue reporting by Location & Service
- ▶ Built-in standard Report Formats – Weekly, Monthly
- ▶ Standard and Ad-hoc query capability
- ▶ Export function to Excel and PDF formats

SCALABILITY

Multi-node clustering configuration

- ▶ Local database with primary/secondary failover & data mirroring
- ▶ Stateless with external database cluster

Built-in HA support

Integrated NMS API and Alarming

