



BROADBAND GROWTH ACCELERATOR

TECHNICAL OVERVIEW

TECHNICAL OVERVIEW

Hansen Broadband Growth Accelerator is a complete broadband solution giving ISP business leaders the flexibility, scalability, and adaptiveness to achieve their growth objectives in today's competitive market.

This solution is built upon our complete, efficient, Hansen

All-in-one Digital BSS, Hansen CCB, an integrated, easy-to-launch, ready-to-use, AI and Cloud-powered open platform offering a full suite of agile, extensible tools to achieve success.

Hansen All-in-one Digital BSS is a best-of-breed, multi-brand revenue, billing, and customer engagement platform, allowing you to efficiently power your digital service business – from idea to delivery – and ensure customer loyalty and retention, all with one integrated platform.

The platform integrates with a wide range of external, third-party systems using industry-standard TM Forum APIs and an extensive flexible integration framework.

FUNCTIONAL ARCHITECTURE

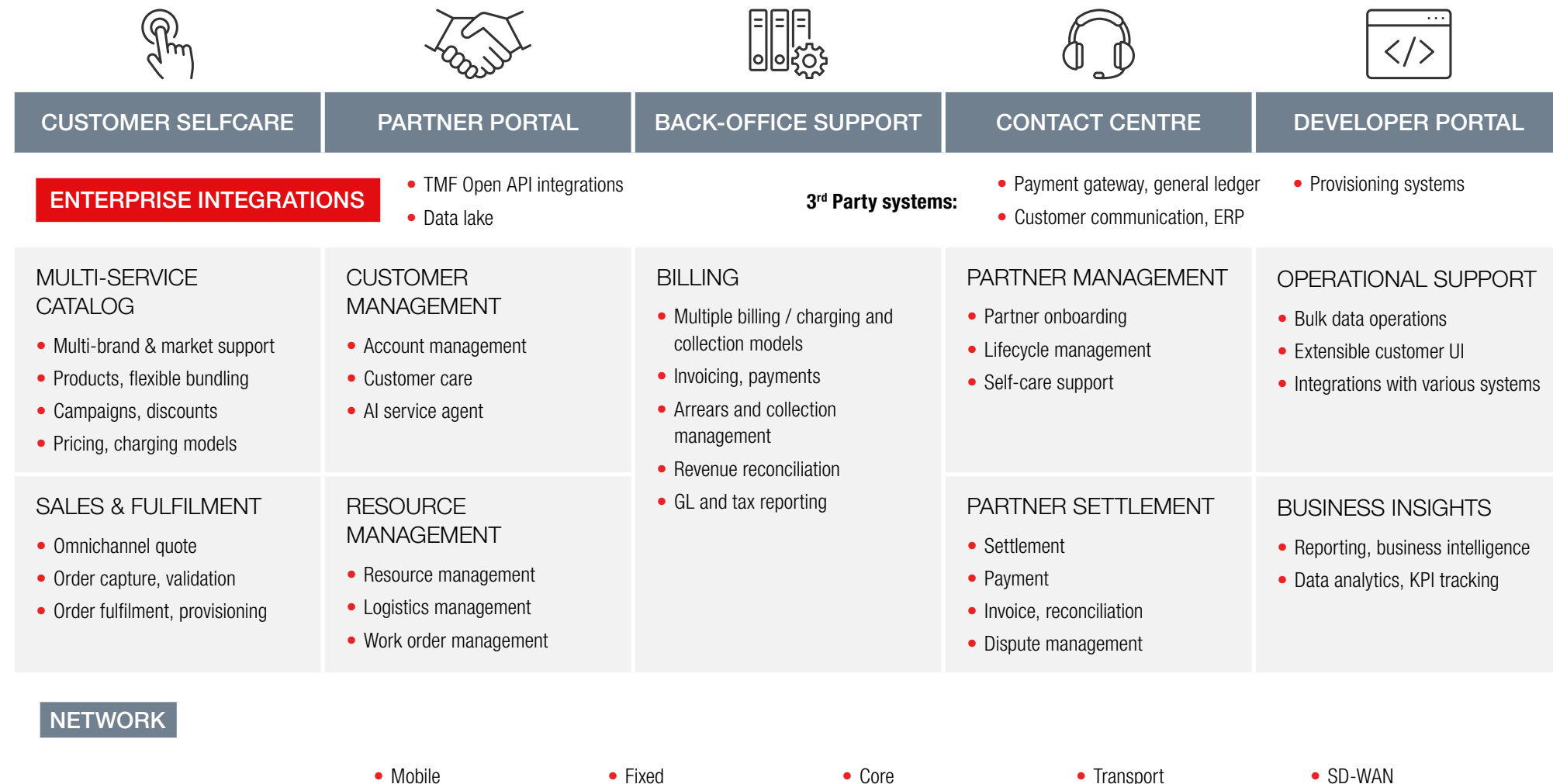


Figure 1 – Broadband Growth Accelerator Functional Architecture

TECHNICAL FUNCTIONALITY OVERVIEW

Functional domain	Functionality
Multi-service catalog	<p>Multi-brand and market support</p> <ul style="list-style-type: none"> • Multi-brand: Supports an unlimited number of brands and lines of business via the platform's 'Business Unit' feature, scaling with the architecture. Each Business Unit can feature its own brand, product sets, pricing and more. • Multi-market: Supports an unlimited number of operating units via the platform's 'Business Unit' feature. Each Business Unit can feature defined languages, currencies, financial and logistics policies, and more <p>Products, bundling</p> <ul style="list-style-type: none"> • Catalog data model: Commercial and technical definitions • Catalog architecture: Integrated design • Product modelling hierarchy: bundles > packages > commercial products > technical products • Product types: Internet, Voice, pay-tv, streaming OTT media, SaaS, and more • Max. product items: Unlimited, scales with architecture • Product onboarding: Rapid partner product onboarding via integrated partner workflows • Bundles: Pre-set and build-your-own bundles. Configurable rules and conditions to manage bundle lifecycle. <p>Pricing, charging</p> <ul style="list-style-type: none"> • General pricing: Based on time periods, usage, events, and more. List pricing for products, regions; price adjustments for specific users and groups. <ul style="list-style-type: none"> • Business pricing: Adjustment for negotiated pricing and special discounts, including based on quantity • Charging support: Subscription – monthly, bi-monthly, quarterly, annual, and other custom periods; post / pre-paid, trial, one-off <p>Campaigns, discounts</p> <ul style="list-style-type: none"> • Campaigns: Initiate multichannel campaigns through SMS, WhatsApp, email, phone, and more, using our AI Service Agent or external campaign managers via API support • Temporary offers: Based on discounts, upgrades and more; automated offer eligibility management • Access: Collaborative, role-based access for business users (e.g. product, marketing, customer service) and technical (network operations, IT) • Integrations: Supports integrations with various systems via .NET framework, including ERP, CRM, Partner portals.

TECHNICAL FUNCTIONALITY OVERVIEW

Functional domain	Functionality
Sales, fulfilment	<p>Omnichannel quote, order capture, validation</p> <ul style="list-style-type: none"> • Data architecture: Dynamic, real-time product, pricing configuration. Driven by multi-service catalog data. • Channel support: Continuous omnichannel quoting / shopping cart – digital, in-store, mobile, social, customer service, partner, custom integrations. Supports in-process channel-hopping. • Validation rules: Definition, enforcement of designated sales rules – availability, eligibility, compatibility (AEC); configurable workflows • Ecommerce pricing: Pricing based on multi-service catalog configurations, executed based on AEC. Can also follow defined guided selling rules (upsell, cross-sell, up/downgrade). • Integrations: Supports integrations with various systems via .NET framework, including CRM, contact centre / IVR, Partner portals <p>Order fulfilment, provisioning</p> <ul style="list-style-type: none"> • Order data: Driven by customer orders. Cross-checked with multi-service catalog and customer data, ensuring compliance with catalog and customer rules (e.g. pricing, eligibility) • Orchestration: End-to-end, event-based order orchestration; manages commercial and technical elements: . decomposition, prioritisation, handling, serviceability, virtual resource reservation • Provisioning: integrated, priority-based service provisioning and device activation • Order tracking: Order sequence management with automated process logging, error auditing, exception handling and escalation. • Supplemental orders: Handles order addition / removal, attribute changes, cancellation of order in progress • Access: Collaborative, role-based for business (e.g. product) and technical users (e.g. fulfilment, IT) • Integrations: Supports integrations with various systems via .NET framework, including ERP, WFM, Dealer portals, third-party provisioning

TECHNICAL FUNCTIONALITY OVERVIEW

Functional domain	Functionality
Customer management	<p>Customer onboarding, account management, customer care</p> <ul style="list-style-type: none"> • Customer Modelling: Customer and business segmentation modelling, geographical segments. • Customer Ticketing: Customer case management tracking with history. • Customer History: Tracking of customer interactions and actions, with history. • Account Hierarchy: Configurable account hierarchy between customers and businesses / line of business servicing them. • Customer care: ticketing system, including advanced customer query, call queuing with CTI integration; APIs for self-care. dealer portals, IVR integration. • Extensible customer UI: Open UI allows integration with 3rd party applications (e.g. logistics, device status, etc.); creation of custom layout using widgets <p>AI service agent</p> <ul style="list-style-type: none"> • GenAI large language model: OpenAI GPT 4.1 mini • Languages supported: <ul style="list-style-type: none"> • Primary: Supports dynamic, mid-conversation switching – English, Spanish, French, German, Hindi, Russian, Portuguese, Japanese, Italian, Dutch. • Specialist: Static conversation support – 42 other languages • Outbound messaging: phone, SMS, email, chat. Use cases include reminders, follow-ups, notifications, and more. • Integrations: Supports integrations with various systems via .NET framework, including CRM, CTI, Partner portals, Contact centre / IVR.

TECHNICAL FUNCTIONALITY OVERVIEW

Functional domain	Functionality
Resource management	<ul style="list-style-type: none"> • Resource management: Track physical and virtual resources (e.g. modem, SIM cards; eSIM, phone numbers) across full lifecycle – first-use, update, repair, reuse, retire; supports reseller consignment model. <ul style="list-style-type: none"> • Physical resource functionalities: Resource deposit, manage / swap resource warranties, mass upgrades • Virtual resource functionalities: Ownership transfer to customer / third party, bulk operations (e.g. adding new phone no. set) • Logistic management: resource stock level management with location and status management; inventory level management / audit, billing for missing stock <ul style="list-style-type: none"> • Third-party management: Credit limit definition, with approval for limit exceeded • Shipping policies: Differentiated shipping rules by order type (e.g. approval process, partial order allowance, charging date, etc.) • Work order management: Manual or automatic work order creation based on pre-set rules and service needs; supports restrictions on service provider based on geography and service type; definition of SLA and status, including escalation; can be associated to charges and commissions • Integrations: Supports integrations with various systems via .NET framework, including ERP, Logistics, WFM, Partner portals.
Partner settlement	<ul style="list-style-type: none"> • Settlement: Custom settlement schemes for product and reseller partners – fixed commission on product sold / new sales, by contract period length, etc. – triggered by events – at customer sign-up / upgrade, service activation, after grace period, etc. <ul style="list-style-type: none"> • Configurable templates: Out-of-the-box, configurable multi-party settlement models. • Account Hierarchy: Configurable account hierarchy associating Partners and businesses. Location-specific business account hierarchies. • Reseller billing, pricing: Support direct and indirect customer billing, incl. with unified billing, grace periods, arrears, and more. Supports wholesale pricing for resellers. • Charging and Taxes: Customer charging with taxes for a given billing period. Supports varied tax calculation methods and charges with inclusive or exclusive tax. • Payment: Receivable from banks and payment gateways, including the ability to send outbound payments to reconcile with Partners • Revenue Recognition: Reporting on recognized revenue with breakup across periods with earned and deferred revenue • Access: Secure, role-based access for partners, internal users, external users. • Integrations: Supports integrations with various systems via .NET framework, including ERP, Payment gateways, Banks, General Ledger.

TECHNICAL FUNCTIONALITY OVERVIEW

Functional domain	Functionality
Billing	<p>Invoicing, payment, arrears, collections management</p> <ul style="list-style-type: none"> • General billing, invoicing: Prepaid and postpaid billing options. Supports balance-brought forward and open-Item invoicing. <ul style="list-style-type: none"> • Business billing, invoicing: Supports dissociated billing from users, special payment terms • Charging, collection: Supports flexible billing cycles - monthly, quarterly, bi-monthly, annual, and other custom periods; reoccurring and one-time / event-based charging, and installment plans. Customer charges include calculated taxes for each given billing period. • Payments: Receivable from banks and payment gateways. Includes automated dunning process support. • Arrears / dunning: Support for late payment notifications, late fees, interest, partial or complete service disconnection, debt write-off, collection agency referral <p>Tax, revenue recognition</p> <ul style="list-style-type: none"> • Taxes: Supports varied tax calculation methods, and charges with inclusive or exclusive tax. Taxes, calculated as a percentage or a nominal amount, can be defined for each price. Taxes can vary by product, country, and customer type / class. Tax exemptions can be registered for individual customers. • Revenue Recognition: Reporting on recognized revenue with breakup across periods with earned and deferred revenue • General ledger: Creation of sub-ledger of the General Ledger with integration with ERP and financial • Access: Secure, role-based access for internal users, external users (e.g. end customers), and partners. • Integrations: Supports integrations with various systems via .NET framework, including ERP, Payment gateways, Banks, Batch file upload, General Ledger.
Partner management	<p>Partner onboarding, lifecycle management, support</p> <ul style="list-style-type: none"> • Partner Modelling: Define partner types with associated characteristics (e.g. product, reseller, service partner, etc.) and data • Partner onboarding: Configurable partner profiles, including settlement plan and billing option • Partner lifecycle management: Management of partner profile data, including settlement plan. Partner interactions tracking, with history. • Self-care support: Custom self-care applications and dealer portals for web / mobile app usage supported via APIs. • Access: Secure, role-based access for internal users, external users (e.g. end customers), and partners. • Integrations: Supports integrations with various systems via .NET framework, including ERP, CRM, Sales channels, Partner portals, Contact centre / IVR, Self-care.

TECHNICAL FUNCTIONALITY OVERVIEW

Functional domain	Functionality
Operational support	<ul style="list-style-type: none"> • Bulk data operations – Data queries (e.g. customer, invoicing, transaction, products / services, schedule events) for bulk processing on data sets (e.g. product / service disconnect / reconnect, upgrade / downgrade, update customer status, etc.) • Extensible customer UI – Open UI allows integration with 3rd party applications (e.g. logistics, device status, etc.); creation of custom layout using widgets • Integrations: Supports integrations with various systems via .NET framework, including CTI, ETL from data warehousing.
Business insights	<ul style="list-style-type: none"> • Reporting, business intelligence – Custom, real-time data reports. Default reporting in SQL, SSRS, with outputs in various formats: Excel, PDF, CSV, TIFF, XML, etc. • Report templates – Out-of-the-box sample reports, customisable templates • KPI Tracking – Using a series of data marts, CCB enables the creation and monitoring of a range of business KPIs. • Integrations: Power BI, data warehouse.
Platform	<ul style="list-style-type: none"> • Deployment architecture: Cloud (public, private, hybrid), on-premises • Cloud-agnostic: Supports AWS public cloud. Adaptable to Google Cloud, MS Azure, and Oracle Cloud Infrastructure.
Deployment processes	<ul style="list-style-type: none"> • Pre-configured settings: Pre-configured fields for common business and system specification including Prepaid and Postpaid billing, Lifecycle management for Customers, Accounts, Products and Resources. • Pre-built connectors: Pre-developed connectors for third-party system integration including General Ledger and Provisioning among others. • Data migration: Pre-defined data structures and automated scripts for system migration where Hansen provides the templates for you to fill in to complete the migration in record time.

SUPPORTED TM FORUM AND ADDITIONAL APIS

TM Forum API	Marketplace catalog	Sales, fulfilment	End-customer management, billing	Self-partner management	Partner settlement, billing
TMF 629, Customer Management		✓	✓		
TMF 632, Party Management			✓		✓
TMF 651, Agreement Management			✓		✓
TMF 666, Account Management			✓		✓
TMF 673, Geographic Address Management			✓	✓	✓
TMF 668, Partnership Management – Coming H1 '26			✓		✓

- We are regularly evaluating investments in other TM Forum APIs beyond those listed. Feel free to inquire about any specific TMF API needs that you may have.
- See **TM Forum Open API Directory** for specific API details.
- Search for **Hansen Technologies** in **TM Forum Open API Conformance Board** for our latest list of certified TMF APIs.
- Hansen CCB – Providing Customer Management and Billing, and Partner Management, Settlement, and Billing capabilities, integrates with a variety of applications via .NET- based framework. Common interfaces include Payment Gateways, Payment Upload, ERP and General Ledger, CTI, CRM, IVR, Self-care and Partner portals.

Additional information about our TMF and other APIs frameworks is available on-demand.

To learn more about how the

Hansen Broadband Growth Accelerator

Solution can fulfil your specific business and Technical requirements, please Speak with a Hansen expert today.



About Hansen

Hansen Technologies (ASX: HSN) is a leading global provider of software and services to the energy, water, and communications industries. Through our award-winning software portfolio, Hansen serves customers in over 80 countries, helping them to create, sell, and deliver new products and services, manage and analyse customer data, and control critical revenue management and customer support processes. Our cloud-native, TM Forum Open API compliant, suite of catalog-driven applications has helped CSPs around the world better capitalise on existing and emerging commercial opportunities.

For more information, visit hansencx.com



hansencx.com



[Hansen_Tech](#)



[/company/hansen-technologies/](#)



[/hansentechnologies](#)