



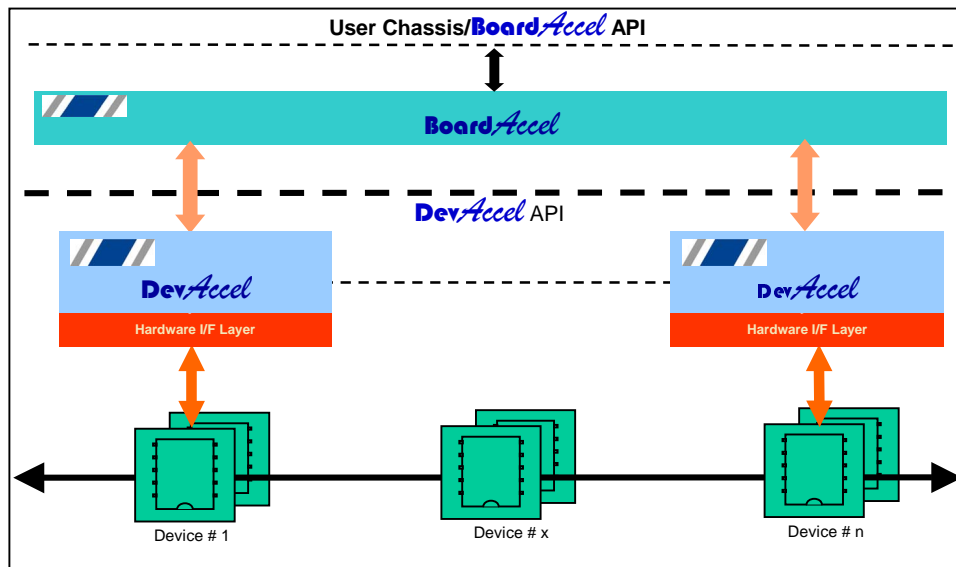
Nakra Labs Inc. is **THE** premier provider of Standards Compliant Carrier Grade software for Networking/Communications Applications. Nakra Labs *Accelerator* Suite of “off the shelf,” powerful software products enables users to rapidly design and deploy their Networking/Communications systems, saving significant amount of time, effort, and money.

The *Accelerator* Suite helps overcome major issues that users commonly face by:

- Lowering Cost
- Providing ROBUST software with significantly lower field failure rates
- Shrinking Design Times and Time-to-Market
- Overcoming the Increasing Complexity of Standards based Protocols and newer ASSP Devices
- Helping users cope with shrinking Design Team sizes

The Board Accelerator or *BoardAccel* line of products forms the second layer of the *Accelerator* Suite of embedded software products, residing between the User’s Chassis Management software and the *DevAccel* layer. *BoardAccel* extends the *DevAccel* functionality to the Board level. It provides an easy to use, abstracted mechanism to control and monitor complex networking cards (such as Line Cards, Access Cards or Switch Matrix Cards). This layer of software alleviates the system developer from the need to master the intricacies of the networking chips that are being used on the board and frees up the developer to focus on the higher-layer differentiating features of the system.

The support that the *BoardAccel* suite provides spans boards containing Framers, Switch Fabrics and Network Processors. The package is custom built with pre-tested components from the *BoardAccel* library of modules and is used to control the devices on the board using *DevAccel* packages. All board and chip specific idiosyncrasies including the chip bring up sequence, alarm isolation etc. are automatically handled by the *BoardAccel* package. Since this layer is custom built around the user’s environment, issues such as integration, board bring-up, code revisions etc. are also taken care of as part of the support/development effort.



BoardAccel functionality includes:

- Device Initialization and Dynamic Re-Configuration without traffic disruption
- Standards compliant Performance Monitoring
- Standards compliant Failure Monitoring
- Interrupt Handling
- Automatic Protection Switching
- LCAS control
- Maintaining all device specific data structures
- Serialization (for Hot-swapping/Warm boot operations)
- Board specific Diagnostics
- Modular Code Base (User can choose the modules/functions that are needed)
- Support for **ALL** the protocols that the devices on the Board support

BoardAccel Library of Modules include:

- Automatic Protection Switching
 - Linear
 - 1+1
 - 1:n
 - Ring
 - UPSR
 - BLSR
 - Maintenance of Squelch Tables
 - Maintenance of Routing Tables
- Switching/Routing for traffic management
- Link Capacity Adjustment Scheme / Virtual Concatenation
 - Maintenance of Tables for channel availability/state
 - Issuing control commands to increase or decrease link capacity under EMS control

BoardAccel Salient Features:

- Integrated Control and Management of all the devices on the board
- Recognizes and automatically handles inter-device dependencies during setup/teardown
- Supports Abstracted Board Configuration Specification
- Supports Abstracted Channel/Stream dependency Specification
- Provides Statistics gathering and servicing of sub-agent queries
- Manages Stream dependencies across multiple devices
- Performs Automatic suppression and management of derived alarm conditions
- Performs 100% of the Board Configuration in any mode that board supports
- Provides COMPLETE access to all the board resources
- Supports Board level diagnostics, POST, and Fault Isolation utilities
- Performs Host Environment specific house keeping: logging, event servicing etc

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