

# T H E M E E T N E W B O S S

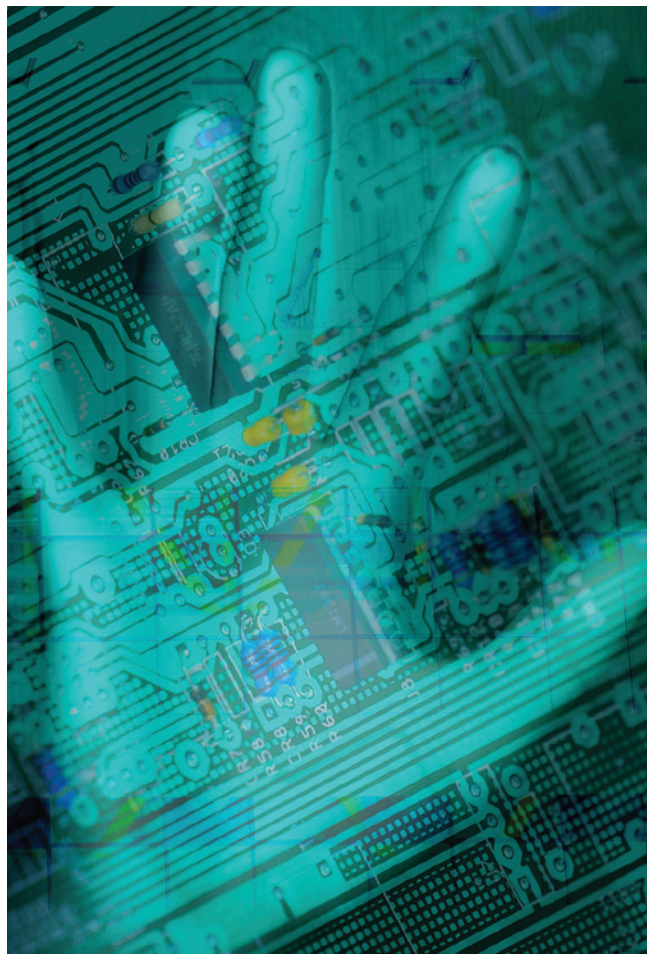


## BROADBAND OPERATIONS SUPPORT SYSTEM

IntraMeta's BOSS gives Internet and media providers a simple, unified, and cost-effective means of both monitoring and managing their business activities.

# WITH EXTENSIVE CAPABILITIES FOR CUSTOMIZATION AND INTEGRATION, BOSS IS THE IDEAL PLATFORM FOR INTERNET AND MEDIA SERVICE PROVIDER OPERATIONS.

**I**ntraMeta's BOSS is a revolutionary Broadband Operations Support System that gives Internet and communications providers a simple, unified and cost effective means of managing their business activities. The entire solution is delivered as a hosted service, eliminating up-front investments, reducing time to market, and allowing operators to pay only for the services rendered. BOSS delivers seamlessly integrated IT functions through fault tolerant, geographically diverse data centers while providing access to all managed services through a secure web interface. Extensive capabilities for customization and integration make BOSS the ideal platform for Internet and Media Service Provider operations.



## Service Provisioning

IntraMeta's provisioning engine enforces variable service levels for all user services, including network connections, e-mail, web hosting, IPTV, VoIP and wireless roaming. BOSS contains native support for most cable modems; IPTV set top boxes, VoIP handsets, and Wi-Fi gateways. Variable services include e-mail quotas, connection speeds, channel line ups, long distance calling plans, or roaming Internet access, to name a few. IntraMeta's Captive Portal redirects web traffic from unknown or non-compliant subscribers to a customizable, scripted web site where users can sign up for service, purchase additional prepaid minutes, pay overdue bills, or sign electronic cease-and-desist agreements to re-instate the account.

## IntraMeta Ticketing System

IntraMeta Ticketing gives providers the ability to manage support issues throughout the organization, monitor business growth and more easily pinpoint areas needing attention. The provider can easily assign tasks to employees and track results. Configurable escalation and notification policies make sure nothing is overlooked. Integration with the e-mail service links e-mail addresses to work queues. IntraMeta Ticketing is a full featured help desk and support issue tracking system that gives providers a powerful tool to manage resources and ensure customer satisfaction. Built-in support for network events (mail, SNMP, http, syslog, etc.) makes this an ideal NOC support platform.

## User Management

The BOSS user interface provides a customer-centric view of operations. Staff can view and manage every facet of a user's account from one location. End users can use the customizable self-help web site to manage settings for internet connections, e-mail, web hosting, IP telephony or IP video. IntraMeta's Captive Portal is a great way to automate new user sign ups or remediate issues with existing accounts.

## IntraMeta Mail

IntraMeta Mail is a purpose-built solution for media and Internet providers looking for a managed e-mail product for their staff and customers. IntraMeta Mail has the latest technologies that customers have come to expect from their e-mail: cutting edge spam and virus protection, variable storage limits, desktop and web based access, auto responder, mailing lists, and integrated contact and calendar management.



## Network Element Management

Providers can track their network and customer equipment throughout their service area. Support staff can monitor the quality of a subscriber's connection as well as actively troubleshoot and manage equipment through BOSS. Notifications can be generated and sent to support staff when problems surface. Providers can proactively maintain their network to ensure a higher degree of customer satisfaction. Network assets of all types can be easily polled and configured using SNMP using standard, vendor supplied or custom MIBs. Native integration with IntraMeta Ticketing and Service Provisioning enables tracking the equipment lifecycle by filing tickets against the equipment and searching the equipments history. Faulty equipment is detected and tickets are created and assigned automatically. IntraMeta's provisioning engine automates the configuration of equipment to enable or disable services.

## Domain Name Services

Providers can easily manage domain names used internally or by their customers. Several features, including service location records (SRV), sender policy framework (SPF) records, and cascading reverse lookups are specially designed for large IP networks. The intuitive web interface greatly reduces complexity and overhead.

## Web Hosting Services

Allows Internet and communications providers to give their customers the ability to host online content such as home pages or family photos. Customizable policies dictate quotas, DNS integration, and server capabilities on a per-user basis.

## Integration Services

All the functions above can be presented through a web User Interface (UI) or an Application Program Interface (API). The API allows BOSS to work with external systems and hardware such as billing and inventory software or cable modem termination systems, video on demand head ends, firewalls, or VoIP gateways to name a few. IntraMeta's catalog of supported third party software and hardware is constantly growing. Our extensible hardware and software support enables you to select the devices and software that fit your needs.

## Professional Services

Anything from interface customizations to incorporating unique 3rd party infrastructure or business workflows can be accommodated by IntraMeta's engineering team. BOSS is designed to be behind-the-scenes technology, with all customer facing services tailored to fit the brand and policies of the client.



# BOSS FEATURES & SPECIFICATIONS

	BOSS FRAMEWORK
Advanced Interface	<ul style="list-style-type: none"><li>• Access to all modules through a single interface</li><li>• All interfaces are highly customizable and can incorporate specific color palettes, logos, or iconography</li><li>• User work spaces are preserved when switching between modules</li></ul>
Integration	<ul style="list-style-type: none"><li>• Instantly export data to XLS, CSV or XML format</li><li>• External systems and data formats are supported</li><li>• BOSS API can provide data synchronization over multiple systems</li></ul>
International Support	<ul style="list-style-type: none"><li>• Single file can be translated to support additional languages</li><li>• Built-in support for international currencies, languages, and character sets</li><li>• User's local time zone is automatically identified and all dates and times are adjusted</li></ul>
Ease of Use	<ul style="list-style-type: none"><li>• BOSS gives quick and focused help according to what the user is currently doing</li><li>• Intelligent forms provide easy data entry and alleviate repetition</li></ul>

	USER MANAGEMENT
Admin. Interface	<ul style="list-style-type: none"><li>• Search, add, edit, or export user records</li><li>• Configurable access levels</li><li>• Multi-dimensional views into user records: contact and billing information, mail settings and usage, connection health, etc.</li></ul>
Self Help Interface	<ul style="list-style-type: none"><li>• Branded portal for user's self management</li><li>• Access to all available settings</li></ul>
Activation Portal	<ul style="list-style-type: none"><li>• Scripted new user signup process</li><li>• Redirects traffic from delinquent or abusive accounts for resolution</li></ul>
Sub Account Support	<ul style="list-style-type: none"><li>• Multiple accounts can be associated with a single billing account</li><li>• Per sub-account mailbox, schedule, contacts, etc.</li></ul>

	SERVICE ACTIVATION
Dynamic Addressing	<ul style="list-style-type: none"><li>• Connectivity can be based on user, equipment, or location</li><li>• Users can be disconnected automatically through enforcement of business policies</li></ul>
Configurable Policies	<ul style="list-style-type: none"><li>• Business rules can be enforced at any level of the provisioning process</li><li>• Service level changes are instituted automatically</li></ul>
Supported Protocols	<ul style="list-style-type: none"><li>• Currently supports DOCSIS, and 802.3 devices using DHCP, TFTP, RADIUS, NTP, and SNMP</li><li>• DHCP Authentication (Option 82)</li><li>• Support for external authentication for dial-up, Usenet, or WiFi hotspot applications</li></ul>
Hardware Support	<ul style="list-style-type: none"><li>• IPTV set top boxes</li><li>• VOIP handsets</li><li>• MAC-based authentication</li><li>• Simple, plug-in architecture to easily accomodate new hardware or vendors</li></ul>
Variable Service Levels	<ul style="list-style-type: none"><li>• Support for a configurable number of service classes</li><li>• Multiple service classes per hardware type or location</li></ul>
Reporting	<ul style="list-style-type: none"><li>• Time based IP usage (CALEA)</li><li>• Datagram level of detail on provisioning transactions</li><li>• Search and view current connections or network segment health</li><li>• Automatic reporting and handling of noisy or faulty equipment</li></ul>

	DOMAIN NAME SERVICE
Record Types	<ul style="list-style-type: none"><li>• All typical records: A, SOA, MX, NS, PTR</li></ul>
Service Location Support	<ul style="list-style-type: none"><li>• Support for SRV extensions for VOIP or IPTV applications</li></ul>
Reverse DNS	<ul style="list-style-type: none"><li>• Reverse DNS support for IP address space naming</li></ul>
Automated Naming	<ul style="list-style-type: none"><li>• Form-based naming policies, automate DNS usage</li></ul>
Sender Policy Framework	<ul style="list-style-type: none"><li>• Support for SPF records to combat spam and the abuse of your domain name</li></ul>



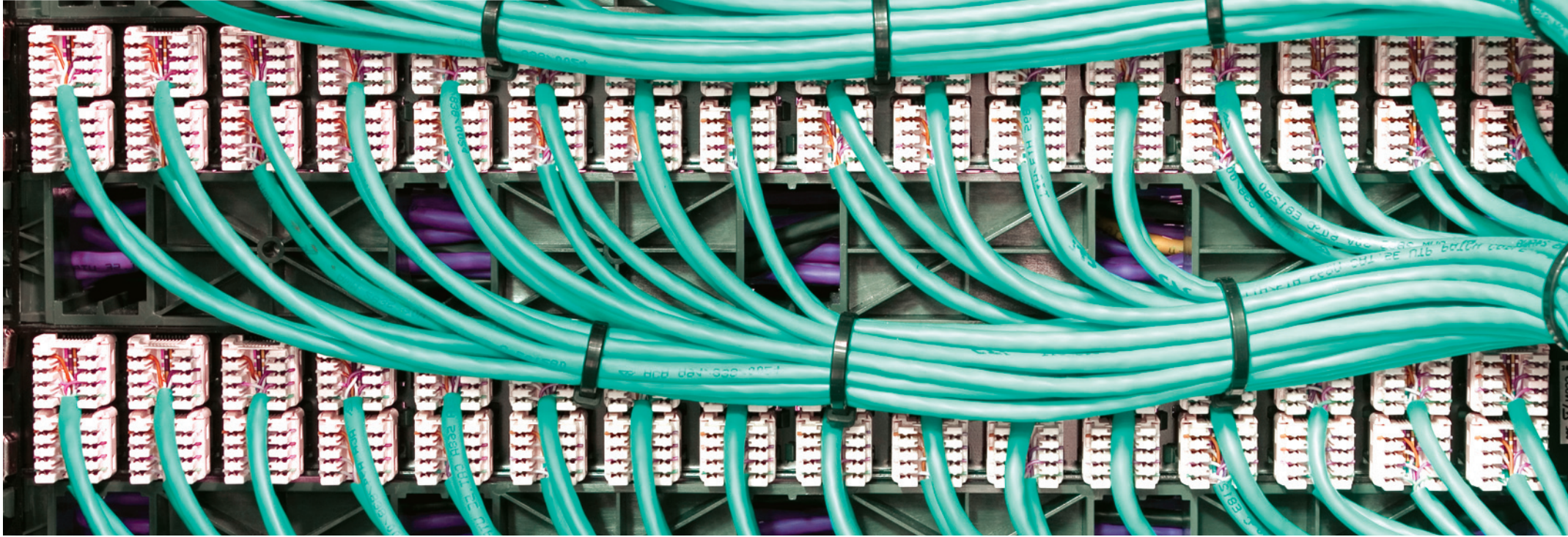


BOSS FEATURES & SPECIFICATIONS

	INTRAMETA MAIL
Storage	<ul style="list-style-type: none"><li>Storage options from 20 MB to 4 GB per user</li></ul>
Filtering	<ul style="list-style-type: none"><li>Cutting-edge spam detection with configurable sensitivity</li><li>Allow or block senders through user or organizationally-managed lists</li></ul>
Virus Protection	<ul style="list-style-type: none"><li>Virus protection updated every hour</li></ul>
Web Access	<ul style="list-style-type: none"><li>Access e-mail, calendar, contacts, and tasks through any web browser</li></ul>
Desktop Access	<ul style="list-style-type: none"><li>Access through all major clients: Outlook (Express), Thunderbird, Eudora, Entourage, etc.</li></ul>
Bulk Mail	<ul style="list-style-type: none"><li>Configurable mail-forwards and exportable mailing lists</li></ul>
Reporting & Auditing	<ul style="list-style-type: none"><li>Reports on usage, access times, per-user and per-site</li><li>Reports on spam and viruses received and total bandwidth used</li></ul>
Supported Protocols	<ul style="list-style-type: none"><li>SMTP, IMAP, POP3, and SMTP-Auth</li></ul>
Mailbox Attendant	<ul style="list-style-type: none"><li>Auto-responds with composed message when out of reach</li></ul>
Mailbox Forwarding	<ul style="list-style-type: none"><li>Forward received mail to multiple addresses</li></ul>

	INTRAMETA TICKETING SYSTEM
Automation	<ul style="list-style-type: none"><li>Customer support tickets can be generated automatically by events or customer feedback</li><li>Tickets automatically escalated aand assigned according to custom policies</li><li>Customer can be notified via email when ticket is updated</li></ul>
Notification	<ul style="list-style-type: none"><li>Personnel can be notified through e-mail, SMS, or pager</li><li>Groups can be created and managed for notification</li><li>Notifications can be tied to severity or category of support issues</li></ul>
Reporting	<ul style="list-style-type: none"><li>Metrics on resolution time, support effectiveness, outstanding issues, issue composition, etc.</li><li>Reports can be composed and saved for instant retrieval or automated mailing</li></ul>
Customization	<ul style="list-style-type: none"><li>Group tickets and agents by categories</li><li>Custom fields per category</li><li>Configurable Priorities and Status</li><li>Escalations and Expirations</li><li>Notifications and Subscriptions</li><li>Mandatory or Optional Follow-Up</li></ul>

	NETWORK ELEMENT MGMT.
Remote Mgmt.	<ul style="list-style-type: none"><li>Manage a users connection with element information, service level, or QoS (802.1q) settings</li><li>Reset customer premise equipment or make instantaneous changes</li><li>Monitor vendor specific properties such as signal level, RSSI, SNR, packet retransmissions, etc.</li><li>Support for custom SNMP MIBs</li></ul>
Relational Awareness	<ul style="list-style-type: none"><li>Assign network equipment to users, sites or installations</li><li>Track assets through lifecycle and throughout organization</li><li>Store detailed information on assets such as serial number, model, vendor, location, etc.</li></ul>
Supported Protocols	<ul style="list-style-type: none"><li>SNMP versions 1, 2, and 3</li><li>Most generic MIBs supported</li><li>Support for additional vendor specific MIBs can be added quickly</li></ul>
Active Mgmt.	<ul style="list-style-type: none"><li>Polling and notification engine to monitor network health or individual network connections</li></ul>
Reporting	<ul style="list-style-type: none"><li>Network elements are searchable by anything from MAC or IP address, user, location, service area, etc.</li></ul>



	BOSS API
Supported Protocols	<ul style="list-style-type: none"><li>XML, CORBA, SOAP</li><li>Transaction-oriented protocols</li><li>Guaranteed message delivery</li><li>Additional protocols available as needed</li></ul>
Systems Integration	<ul style="list-style-type: none"><li>Allows for the integration between legacy hardware or software with BOSS</li></ul>
Reporting	<ul style="list-style-type: none"><li>Support for integration with third party software such as accounting or inventory software</li><li>Can be used to consult external databases or repositories</li></ul>

	WEB HOSTING SERVICE
Storage & Bandwidth	<ul style="list-style-type: none"><li>Storage options from 20 MB to 2 GB per user</li><li>Configurable bandwidth usage limits per user</li></ul>
Reporting	<ul style="list-style-type: none"><li>FTP access for file maintenance</li><li>Individual logs per user for troubleshooting and monitoring traffic</li></ul>
Domain Names	<ul style="list-style-type: none"><li>Custom domain name support</li></ul>
Supported Protocols	<ul style="list-style-type: none"><li>HTTP, HTTPS, PHP, Perl</li></ul>

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