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Service Director

The Nalini Networks® Service Director is the market leading network accounting & legal intercept product that provides Pre-paid, Post-paid and Lawful Intercept solutions to the service providers around the globe. With a scalable and robust architecture it can seamlessly integrate into 2G, 3G, WiMAX, 4G and wireline networks. It eventually enables the service provider to account for every byte of the bandwidth utilized, ensure there is no revenue leakage, present rich mobile internet experience to the subscriber and fuel data services growth. The Service Director assures carrier-grade performance and scalability of mobile data services.

Pre-paid Charger allows service providers to offer pre-paid data services while reusing their existing billing system and protecting their investments. It provides the flexibility to the service providers to offer a variety of prepaid data access services viz. bytes/time consumed, per download, per message, per subscription etc. The Pre-paid Charger provides an adaptation layer that supplies appropriate functionality between the network, applications, and the prepaid engine. Totally integrated into existing billing systems, Pre-paid Charger provides a seamless and easy-to-administer service, helps prevent revenue leakage, and is fully traceable, allowing for revenue recovery in case of failure.

Post-paid Charger formats and processes subscriber usage data across multiple access technologies to support post-paid charging needs. Tracking and capturing data related to subscriber usage is a bottom-line business need for all service providers. To ensure timely, accurate billing and revenue realization, service providers need to provide subscriber session records to billing support systems in a format that these systems can handle. Post-paid Charger correlates and aggregates accounting data into single-session records that identify subscribers and their usage. It then filters, formats, and streams these records to external billing support systems, providing an affordable alternative to custom or mediation-based solutions.

Lawful Intercept (LI) is a feature to help service providers meet the legal requirements of Law Enforcement Agencies (LEAs) to provide the ability to intercept data traffic going through edge routers. The accounting start/stop messages will be sent by the Service Director to the Mediation Device (MD) instead of from the AAA server. The Service Director will receive intercept request from Mediation Device (MD) over IPv4 ethernet interface and will intercept the particular user traffic based on IMSI/MIN or ESN and send encapsulated packets to this interface.

Features and Benefits

- **Fully functional centralized database** – extensive API support reduces internal development time and costs, and enables faster deployment.
- **Supports NWG requirements for fixed and mobile WiMAX, including automatic provisioning of new users over-the-air (OTA), as well as Lawful Intercept (LI) networks.**
- **Pre-paid and Post-paid charging functions** – eliminates the need for custom mediation solutions.
- **Deployable in weeks, not months** – improves time to market.
- **Single-platform support for 2G, 3G, WiMAX, 4G, and wireline networks** – for advanced services across multiple networks in fixed, mobile, and converged deployments.
- **Includes both time-and volume-based prepaid quotas** to support multiple business models.
- **Immediately suspends sessions upon draining of a prepaid account**, helping to eliminate revenue leakage.
- **Provides a low-balance notification** with a configurable threshold, ensuring service continuity and keeping accounts from fully depleting.
- **Enables automatic subscriber redirection** to a prepaid portal, allowing subscribers to top up accounts once the low-balance threshold has been reached.
- **Offers standards-based support including Diameter Credit Control Application (DCCA) interface** to accelerate time to market.
- **Provides end-to-end postpaid ecosystem** – correlation, aggregation, filtering, formatting, and streaming of information — to turn user sessions into revenue in no-time and affordably than solutions developed in-house, by mediation vendors, or by third-party integrators.
- **WiMAX: Support for RADIUS session-based and flow-based accounting.**
- **Itemized reporting capabilities** to support subscriber service and network usage analysis & planning.



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- **Aggregates, correlates, formats, and automatically streams records to appropriate billing support systems (BSS)** with no human intervention. Audits records streaming into and out of the system, ensuring record accuracy and consistency.
- **Automatic replication of session records** in geographically separate locations prevents potential revenue loss in case of catastrophe.
- **Decreases demand on back-end systems** – reducing the number of accounting messages that need to flow to back-end business support systems using record aggregation.
- **Offers a open and scalable solution** that supports streaming and formatting of network-specific session records.
- **Support for extensible data formats** – allowing new input and output record formats to be defined using a simple XML-based formatting language, without the need for any development.

Standards Support

RFC 4006 (Diameter Credit Control Application (DCCA))

Administration

Web-based corporate manager and user self administration
(IE 5.0 or Netscape Navigator 6.0 or higher)
CLI and GUI for Windows XP, Vista or equivalent
APIs for BSS integration

3GPP/ETSI

TS 32.299 (Diameter charging applications)

TIA/EIA

IS-835C (3G Data prepaid support)

WiMAX

WiMAX Forum NWG release 1.5

Technical Specifications

Requirement	Minimum Configuration	Recommended Configuration
CPU	1 x 1.0GHZ Sun UltraSPARC T1 Processor	1 x 1.0 GHz UltraSPARC T1 – 4 Core
Memory	8 GB RAM	8 GB RAM (16 x 512 MB DIMMs)
Internal Mass Storage	2 x 146 GB Hard Drives (Minimum sizes from Sun)	292 GB (2 x 146 GB) 10,000 rpm SAS Disks
System Type	Sun Server Model	Sun Netra T2000 Server (Configuration 1)
Operating System	Solaris 10	Solaris 10
Network	1 x 10 Mbps Ethernet	4 x 10/100/1000 Mbps Ethernet
Multimedia	1 x CD-ROM	1 x DVD-RW
Power / Cooling		100-240 V AC or -48 to -60 V DC
I/O		3 PCI-X, 1 PCI-E
Physical Specifications		2 Rack Units (2RU)

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