

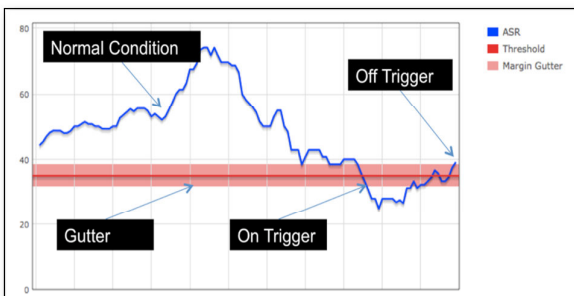
**Alarming Module**

This is an Adaptiv sub-topic discussing Alarming. This should be read in conjunction with the General Product Brochure.

**Alarming** offers a level of assurance and protection against poor network performance or even fraudulent activities. Adaptiv monitors and alarms on changes in the “normal” operation of the network. It does so with a set of intelligent alarms, which monitor key metrics such as call duration, success rate and quality.

**Notification** to key personnel can be made via SNMP and/or e-mail, allowing them to react to adverse conditions in the network rapidly and effectively. Adaptiv can also **automatically** react to alarms, by activating or deactivating predefined route overrides. The route override rules can be defined to promote, demote or even block routes. Using automated response, Adaptiv ensures that SLAs are maintained at all times

Adaptiv provides a **Gutter** setting, which counters the “Hysteresis effect” of sensitive alarms. The gutter allows the alarm to cross the threshold and return without triggering the alarm within a few percent of the threshold.

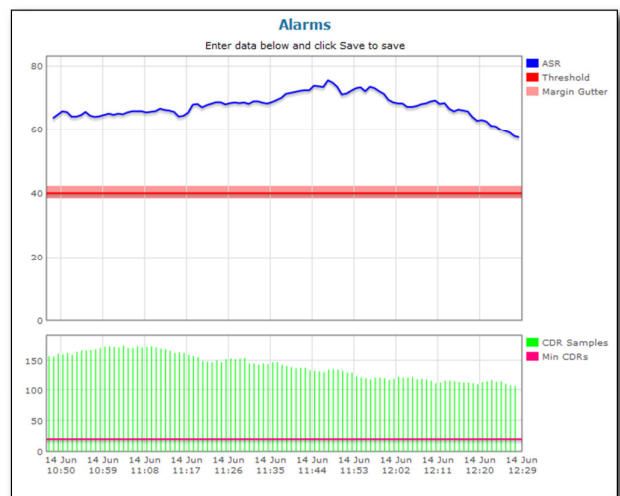


Varying traffic patterns are easily dealt with by establishing **Time periods** in an alarm. Time periods establish alarms for very specific times

of the year, week or even each day. This all provides fine-grained control over the alarming process.

**Notification** is done using e-mail and/or SNMP traps. The user can establish multiple actions and assign the actions to the alarms as required. The severity of the alarm can also be customized.

**Alarm Graphing** shows the user what an alarm would look like over a sample period. It allows users to establish trends to set up alarms and select the most appropriate values.



Using the alarm graph, the user can fine-tune the alarm to suite their very specific needs.

**Granularity** of alarms is a key differentiator in Adaptiv. The granularity can be varied from carrier level down to dial code level.

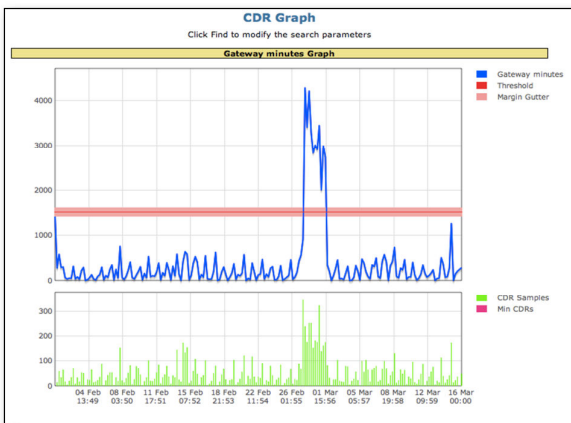
As with all other sections of Adaptiv, **history** provides a running record of when alarms triggered and recovered. Each record provides

the full detail of the alarm, including a graph to show the trigger event.

Date/Time	User	Action	Name	Status
2011-04-07 11:44:00.0	System User	Alarm - On Triggered	Chile 56	SUCCESS
2011-04-07 10:36:31.0	System User	Alarm - Off Triggered	Canada/USA 1	SUCCESS
2011-04-07 09:38:38.0	System User	Alarm - On Triggered	Canada/USA 1	SUCCESS
2011-04-06 22:53:31.0	System User	Alarm - Off Triggered	Cambodia 855	SUCCESS
2011-04-06 22:45:59.0	System User	Alarm - Off Triggered	Thailand 66	SUCCESS
2011-04-06 22:10:20.0	System User	Alarm - On Triggered	Thailand 66	SUCCESS
2011-04-06 22:01:05.0	System User	Alarm - Off Triggered	Hong Kong 852	SUCCESS

Adaptiv offers an ever-growing suite of alarms focused on both Operational as well as Financial based metrics.

Operational alarms look at the performance of the device and provides assurance that operational staff will be notified when the service degrades. Alarms such as call duration (**ACD**) & success rate (**ASR**) monitor average trends and performance. **CDR Count** is a simple yet effective alarm that ensures misconfigured devices are quickly identified, while **Error Count** looks at the reoccurrence of a particular type of call release code, such as “no circuits” or “not authorized”



Financial alarms look at the performance of the device, focusing on cost and revenue for a

particular carrier or service. **Gateway Minutes** monitors the minutes to or from a particular carrier and is used to detect potential fraudulent activity or alert sales staff of upsell opportunities. **Gateway Cost** similarly provides an associated dollar amount instead of minutes. This is most often used with new carriers where spend thresholds are set to alert account managers to visit the carrier for additional business or of possible fraud.

### Conclusion

Adaptiv offers a real solution to network visibility across multiple routing devices. It allows for a uniform way to import rate sheet data and analyse CDRs. Adaptiv’s graphing provides the user with a simple and intuitive interface to understand the routing of calls through their systems.

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