



## **Managed Services**

- IT as a Service
- Security as a Service
- Cloud Service

## **IT as a Service**

### **CrystalAlert Fault Monitoring and Management**

This service will provide 24x7x365 remote fault monitoring of CPE using standard SNMP management tools from our Network Operations Centers. Crystal will respond to any alarms received from the CPE indicating a problem with the CPE or the circuit. Crystal will begin work on resolution of the problem immediately upon recognition of the problem. Crystal will notify Customer or End User according to a mutually agreed escalation process.

In the event that an outage or network problems occurs which is determined to be a site related issue, Crystal will document the issue within its ticketing system. Crystal will close the ticket once the site related issue clears up. Once the ticket is closed, the Customer will receive an email indicating that the site issue is resolved. Examples of site related issues are: Loss of power to site, damage to premise cabling, accidental disconnection of site cabling or equipment.

In the event that an outage or network problem occurs which is determined to be a Carrier circuit failure, Crystal will, via a Letter of Agency from End User, contact the relevant Carrier and report the issue for resolution. Crystal will then continue to manage the problem and follow up with the Carrier to ensure service is restored as quickly as possible.

In the event that an outage or network problem occurs which is determined to be a failure of CPE, Crystal will diagnose and attempt to resolve the issue remotely.

If the outage cannot be resolved remotely, Crystal will contact the Customer's maintenance provider to enact Customer's maintenance contract. Upon the



maintenance provider providing Crystal the part and/or field engineer ETA to End User site, Crystal will advise Customer. Customer will be responsible for contacting maintenance provider if ETA is unacceptable. Crystal will follow up with Customer to ensure part replacement resolved problem. Crystal will not provide technical support to Customer's maintenance vendor to support part replacement.

A fault is defined as a failed device poll indicating the target device is not visible to Crystal's network management systems. CrystalAlert services consist of the following:

- 24x7 device and circuit monitoring to include real-time polling of devices to confirm their visibility to Crystal's network management systems, up/down status and archiving the events in the current and historical event log.
- Detection, isolation, diagnosis of each fault and restoration to normal operating conditions, testing and documenting each fault within Crystal's trouble ticket system
- Ownership of resolution of the problem on behalf of the End User and act as an agent for the End User under executed letters of agency
- Dispatch maintenance provider's support according to the Customer contracted maintenance support agreement
- Notify the Customer of the progress of all faults per Customer provided contact process
- Perform fault diagnosis and resolution per the timeframes within Crystal's fault monitoring process and/or escalation process
- Safeguard End User's proprietary information and take all necessary precautions to ensure secure management connection from Crystal's remote management center into the End User's network
- Supply secure Customer or End User web access to view the fault monitoring alarms and event logs

Provide weekly and monthly CrystalWatch fault monitoring reports