



## The Internet of **Your** things

Apex EMS provides a comprehensive summary and management interface for a critical communication systems by integrating SNMP-enabled elements and TASC Systems' remote monitoring platforms into a unified framework.

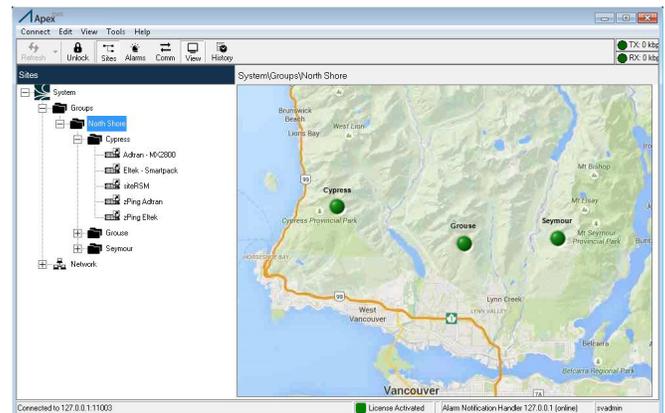
Apex EMS aggregates real-time data from all network devices and TASC Systems' monitoring platforms. Additionally, real-time summary information, including alarm notifications and element status, is available for field operations, via Apex EMS user interfaces. Using the flexible client-server architecture, the data can be easily accessed by one or multiple operators. This allows each operator to monitor, control and be alerted to alarms from multiple locations across a number of systems.

System performance issues can be identified and tracked. This shortens response time to failures, allowing faster deployment of solutions, and the option to schedule the maintenance.

The software presents a simple Graphical User Interface (GUI) using an intuitive instrument panel interface. The graphical controls can be positioned on the screen to look and behave like the physical system being monitored and controlled. This visual display makes it very easy to navigate throughout the system.

### The Power of Apex EMS

- **"At source" decision making:** Online analysis supports making well-informed decisions that leads to saving money.
- **Reliable and stable interface:** A completely integrated system deployed on an open architecture network.
- **User design graphical interface:** GUI can easily be designed by the user using predefined instrument panel to represent the network being monitored.
- **Event and alarm messaging:** Email, SMS and FleetSync™ messaging provides flexibility in notifying field services personnel.
- **Apex Mobile** provides device management and alarm information from mobile smart phone, tablet or any other web enabled devices.



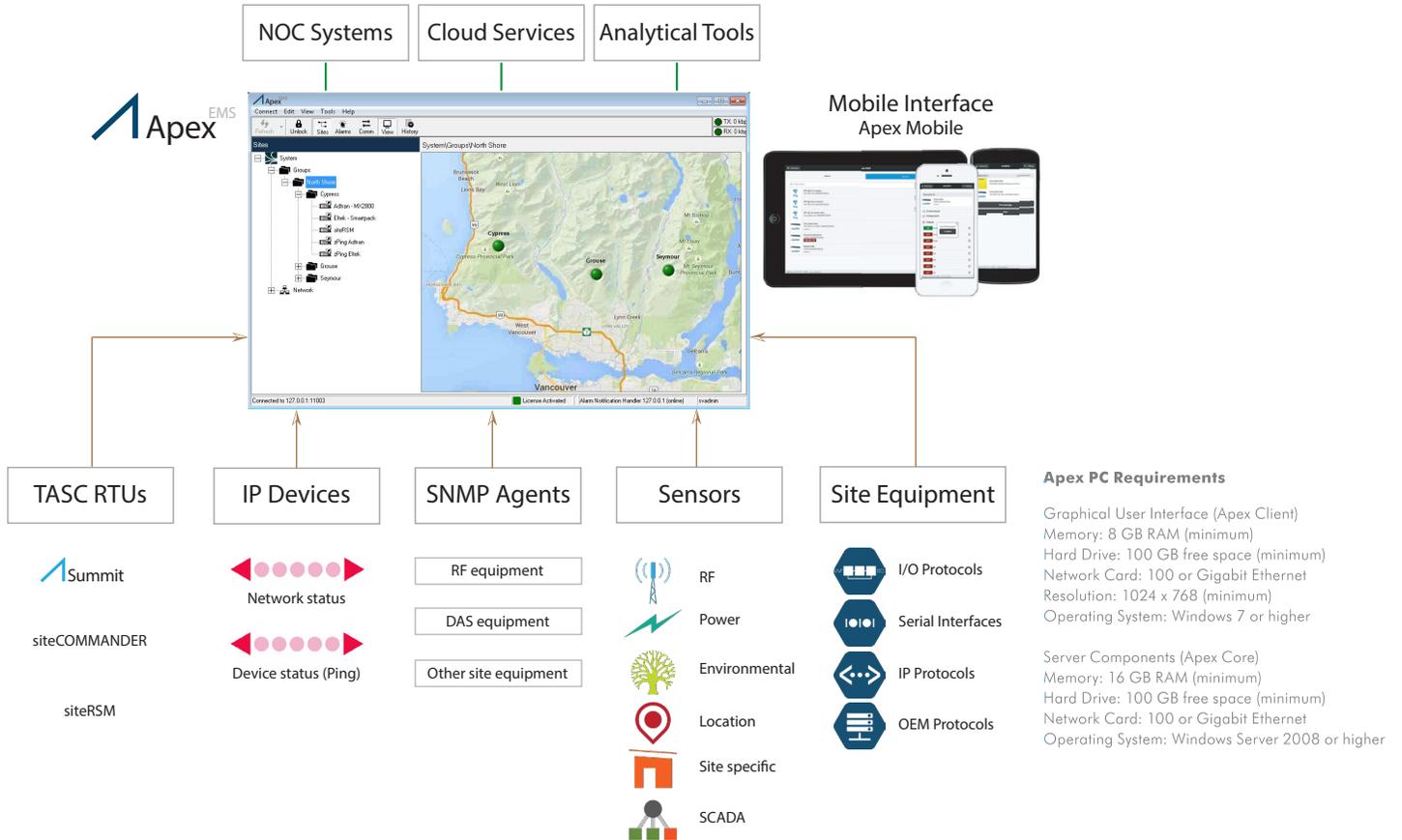
### Network Management

Apex EMS provides a singular, consolidated view of network operations through SNMP-based connections to system nodes and element managers. Apex EMS supports SNMP traps as incoming events, with filtering available for alarm notification. Basic SNMP configuration is available. All SNMP traps are logged for data analysis and charting.

### Site Management using TASC Systems' Platforms

Apex EMS enables detailed visibility into remote site operations. Apex EMS provides native support for the TASC Systems' monitoring and control platforms: siteCOMMANDER, siteRSM and Summit. These platforms can be deployed in diverse applications and be scaled to meet site requirements. These platforms can be connected to a variety of site-specific sub-elements including radio systems I/O, RF sensors, environmental sensors, site security devices and power management systems.

TASC Systems' platforms communicate with Apex EMS using standard SNMP, TASC Systems' light weight protocol, which is ideal for radio and serial communication, and other industry standards. Support physical interfaces include Ethernet, RS-232 and 4-wire connections. Once connected, Apex EMS received site events or traps as they happen. These platforms can also be polled through a configured schedule or manually upon operator request.



## Features

- Support for SNMP v1, v2 and v3.
- Event logging keeps track of incidents.
- Distributed monitoring & control of siteCOMMANDER, siteRSM and Summit networks.
- View status of SNMP devices, siteCOMMANDER, siteRSM and Summit locations simultaneously on same screen.
- Create your own background map/graphics to resemble your network's physical layout.
- Supports device ping.
- Real-time presentation by polling of operator selected data.
- Automatic remote control of siteCOMMANDER, siteRSM and Summit outputs based on monitored events.
- Outputs at a given site can be "mapped" to change based on an event occurring at the same site or multiple sites.
- Immediate notification of alarm conditions.
- Alarms can be sent to one or many operators.
- Visual, audible and pop-up alarm notification.
- Permission levels settable to company defined security measures.

## System Architecture

Apex consists of five software components:

1. System Core manages the network configuration, communication, events and alarms between network elements and operator interfaces.
2. Communication Service with each SNMP agent and TASC Systems' platform. Drivers are available for other standard protocols.
3. Alarm Manager filters incoming events and uses configured rules to action alarms. Each alarm is assigned a critically and, optionally, a remedial action documentation.
4. Graphical User Interface (GUI) provides a graphical view of each network element and TASC Systems devices. All nodes are organized within a hierarchical tree representing the network.
5. Mobile Interface provides a summary of each network node complete with real-time status and alarm notifications. The mobile interface is designed for a range of devices from smartphones, tablets to laptop view.

The software components can run on a single computer, or can be placed on multiple computers depending on the needs of your network.

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