



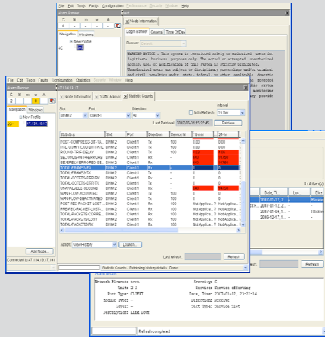
Bringing Network Systems to Life™

# EMS and NMS Design

AFORE Solutions provides custom development services to networking equipment companies. One of the development solutions that AFORE offers to its clients is carrier grade, element management systems (EMS) and network management systems (NMS) software development. AFORE can help its clients to accelerate the time to market of their EMS/NMS solutions based on a proven track record of delivering multiple EMS/NMS software development and integration for industry leading carrier grade Ethernet platforms, wireless backhaul access equipment, GPON equipment, and Enterprise WAN optimization appliance,.

### Technical Expertise

AFORE's EMS/NMS development team has in-depth expertise and domain knowledge in network management, including configuration, SLA monitoring, performance monitoring, fault management, alarm reporting, standard protocols such as SNMP, NetConf, standard and/or enterprise MIBs for Ethernet, Multi-Services, IP/MPLS, PWE3 and wireless product lines, middleware like J2SE, JDMK, 3rd party EMS/NMS framework such as Tail-F ConfD, HP OpenView, and protocols to support secure management such as IPSec and Radius.

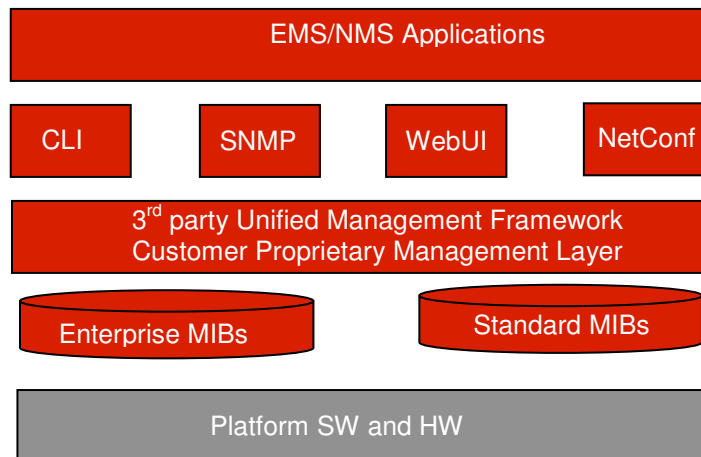


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### Customer Cases

AFORE has successfully delivered multiple EMS/NMS projects to its clients in North America and Europe. The following are some examples:

1. Network management software development for a family of multi-service switching and routing platforms. The key technologies used in this project include SNMP, Java, SQL, JDBC, integration with HP Openview, multiservice interworking MIBs development and a proprietary unified management framework for CLI/SNMP/HTTP.
2. Light-weight EMS software application for a Carrier Ethernet product line. The development involved standard management protocols, middleware like JDMK, MBean, data base synchronization, Carrier Ethernet MIBs, custom MIB browser and trap notification tool.
3. EMS development for an Enterprise WAN optimization platform. The EMS supports security, encryption, compression, SAN extension, SLA monitoring and bandwidth provisioning depending on the time of the day etc. IPSec, SNMP, and Java middleware were used for the development of the software.