



## Optional Modules – Part I

### Real-time Solutions for Real-time Operations

CGI offers a complete range of information technology and business process services and is committed to provide its clients with solutions that meet their needs.

Our Utility Solutions team focuses on providing industry-leading solutions and services that span the horizontal workflow between clients, control rooms and crews, benefiting a global client base rooted in the electric, gas and water utility markets. CGI enables the real-time management of mission-critical processes by offering a feature-rich and field-proven solutions portfolio.

#### **THERE ARE WAYS TO MAKE GOOD THINGS BETTER. HOW DO YOU RAISE THE BAR ON CUSTOMER SERVICE?**

##### **Alarm and Event Manager – Effective Emergency Response Management**

The Alarm and Event Manager (AEM) is the configurable, JAVA-based responsive alarm monitor in the CGI Outage and Network Management solution suite. It alerts operators to events, jobs or requests in real-time that require operator awareness or intervention. These alarms are configured and generated from within each operator's control or dispatch zone (see Control Zone Manager). Alarms are classified according to their severity, and the operator can accept, clear or view them as necessary.

The AEM filters alarms to the relevant workstation, after which they remain unaccepted until the appropriate control or dispatch zone operator acknowledges them. Information about each alarm and its event-related data can be requested from the object manager, since the OMS/NMS model is able to seamlessly access information from PragmaUP and PragmaVIEWS. Alarms generated are thus referenced to calls, devices and jobs. Alarms can be set for any type of event, and notifications routed to the appropriate personnel. The AEM's highly configurable functionality minimizes the length of restoration efforts, which are crucial to minimizing customer response times thus refining the delivery of quality services to the customer.

##### **Event Replay – Configurable, Responsive Analysis and Training Tool**

Event Replay is the extensible and versatile post-incident analysis module in our Outage and Network Management Solution suite. Designed to re-create any incidents archived during a period previously specified in the System Event Log in the OMS/NMS model, Event Replay is a valuable tool for any utility committed to effectively improving or refining its incident-response strategy. The Event Log also provides current information about the most recent network activities and operations. The comprehensive filtering and search mechanisms permit selective processing of the Event Log for specific events or sequences thereof. Operations personnel can evaluate decision-making skills and Performance as the event unfolds. The operator can review the incidents as they occurred, but control the rate at which incidents are replayed. Its efficacy and relevance are further extended when used in conjunction with PragmaSWITCH and PragmaVIEWS.

Event Replay is an excellent tool for training dispatchers and other personnel because customized incidents can be generated and re-used as necessary. In an industry with high turnovers for dispatchers and operations personnel, Event Replay is an integral part of our training methodology, designed to quickly train operations personnel on using our solutions with real-world data available for event simulation.

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### **Circuit Explorer – Interactive, Powerful Network Schematic Views**

Circuit Explorer is the real-time one-line diagram management module in the Outage and Network Management suite of solutions. Circuit Explorer automatically generates one-line diagrams from the Distribution Network Inventory (DNI) database, which contains all network connectivity data, as well as any event-related information affecting the network. All modifications to the DNI database are immediately reflected in the diagrams. Circuit Explorer is connected through a database-to-graphical display link, which activates network representations available in both PragmaSWITCH and PragmaVIEWS. The basic features of Circuit Explorer are extended further by this ability to switch between geo-schematic and ortho-schematic views. All indicators and symbols are activated automatically to alert the operator to an event, when their associated devices or equipment is damaged or malfunctioning.

Circuit Explorer displays a comprehensive range of electrical network states including: overhead and/or underground power lines in both active and de-energized states; isolated lines by either ground or open-ground equipment; parallel feed lines and phases. The devices and symbols, including their blink rates and colors, are completely configurable and can be edited. Comments and notes attached to the equipment or maps can also be linked to the one-line diagrams. A combination of detailed information and highly configurable display entities, Circuit Explorer complements and supports PragmaSWITCH, which is crucial to any network management system.

### **Control Zone Manager (CZM) – Intelligent Filtering and Notification Routing**

The Control Zone Manager (CZM) is an efficient and intelligent control and dispatch zone manager module in our Outage and Network Management Solution suite. Designed specifically for control engineers and dispatchers, the CZM helps operators to clearly define and manage ownership of those zones. The CZM is a hierarchy of control entities, the largest of which is the Control Groups, which extend over an entire network. These are subdivided into Control Areas (which generally cover all the feeders from a primary substation), and at the lowest level, one or more Control Zones, which include all the network circuitry. Operators are assured complete and independent managerial responsibility for their respective groups, areas and zones.

The CZM extends control authority to the Alarm and Event Manager (see AEM module section) so that operators can filter tabular data, e.g. incident and outage analysis displays, to display only information pertinent to their respective sector. The CZM combines advanced, flexible information filtering and notification routing with established areas of control responsibility.

