

Services

Kenexis Professional Services

We provide a range of services that are geared toward identifying the risks posed by process plants and manufacturing facilities and then assisting in the implementation of technical safeguards to mitigate those risks.

Kenexis services fall into four main categories:



**SAFETY
INSTRUMENTED
SYSTEMS**



**PHA
LOPA
QRA**



**FIRE &
GAS
MAPPING**



**SCADA
SECURITY
& RELIABILITY**

Our services help our clients to comply with appropriate regulations and standards, and benchmark their performance and processes against industry best practices. These services allow our clients to have best in class safety and reliability while investing resources that are in line with industry norms.

SAFETY INSTRUMENTED SYSTEMS

Safety instrumented systems (SIS) are flexible and effective tools for safeguarding process plants. SIS can be configured in many ways to meet a variety of process goals and performance targets. Kenexis helps our clients to utilize Safety Instrumented Systems by assisting in the design, verification and ongoing mechanical integrity programs. This assistance includes risk-based establishment of Safety Integrity Level (SIL), developing Safety Requirement Specifications (SRS), quantitative design Verification (SIL Verification), Test planning and assistance and continuing performance assessment and auditing.

PHA, LOPA, QRA

PHA is a systematic, analytical task, which aid in identifying and evaluating the significance of process hazard scenarios that can result in consequences, such as fires, explosions, uncontrolled chemical reactions, and toxic gas releases. There are a variety of PHA techniques to choose from based on a range of factors. Kenexis can help you identify the most appropriate PHA techniques, and facilitate the PHA study.

Focused QRA helps to quickly resolve complex recommendations and project requests by employing quantitative risk analysis to provide concrete metrics for optimal solutions.

FIRE & GAS MAPPING

Services include assistance in all phases of the fire and gas system lifecycle. These services are based around our unparalleled expertise in fire and gas system design, process knowledge, and overall risk analysis capabilities. This expertise is then deployed using best-in-class tools such as the Effigy™ fire and gas system computer aided detector-mapping software. This combination



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provides the most rigorous analysis, which results in the safest plant at the lowest cost by optimizing detector placement.

SCADA SECURITY & RELIABILITY

Focuses primarily on industrial control systems (ICS) network design, security assessments and performance. We take a holistic systems based view that considers the industrial process and associated risks in our network design and vulnerability analysis.

Solid network design is the heart of our solutions. All the device patches and vendor upgrades in the world won't solve the problem if the devices cannot reliably and securely communicate. A well-designed network will serve your business well with reduced shutdowns, better visibility, secure remote connectivity, and less unexplained downtime.

It is vital to your success for us to understand your business, process, threats to safety, and the operational characteristics of the ICS prior to analyzing your network for performance or cyber vulnerabilities. Our standard work process starts by understanding the objectives then analyzing the process to identify hazards. Next we analyze the hazards to determine the level of risk before designing system safeguards to reduce the risk to a tolerable level. We often utilize the guidelines defined in the NIST Cyber Security Framework as a guideline for the businesses we serve.

About Kenexis

Kenexis is an independent engineering consulting firm. We ensure the integrity of instrumented safeguards and industrial networks. Using skills in risk analysis, reliability engineering, and process engineering, we help establish the design and maintenance specification of instrumented safeguards, such as safety instrumented systems (SIS), alarm systems, fire and gas systems. We use the same skills for industrial control systems (ICS) network design, cyber security assessments, and industrial network performance analysis.



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