



ActuariNet investigates

The **e-architecture**
design principles,

The **risk assessment**
methodologies,

And the **insurance**
instruments

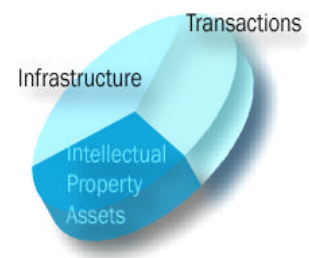
**That eBusiness needs to achieve
the maturity & continuity of
conventional commerce**

EBusiness has been touted as a frictionless market-making medium - a provocative characterization, yet one that discounts all the new and novel risks that electronic commerce invites. The electronic commerce domain is still very much a realm of untamed perils. What remains most elusive is a clear understanding of how architecture, technology and financial assurance instrumentation for e-commerce systems can work together to give eBusiness the continuity and security of conventional commerce - or better.

ACTUARINET, standing at the confluence of all these disciplines, is assembling researchers and practitioners from a number of fields and institutes inside and outside of MIT to investigate electronic commerce risk and the role that technology, business architecture design and insurance instruments can play in managing it.

ACTUARINET, a project of the School of Architecture and Planning at MIT, will be investigating the role that risk-management (including internal controls, technical and insurance mechanisms) will play in three principal areas:

Infrastructure and operations; intellectual property assets as well as **commercial and financial transactions**.



Each of these areas accumulates specific business risks within electronic commerce architectures, which must be engaged on their own terms, in part, because they often speak to different constituencies' concerns. These genus-specific risks, in part, contribute to the risk profiles sculpted by eBusiness processes, technologies, media, and legal context – just as various factors related to an automobile (engine displacement, ground clearance, operator and driving context) effect overall safety.

Infrastructure & Operations	IP Assets	Transactions
ACTUARINET will survey and analyze the inherent operational exposures that threaten the continuity of service to eBusiness through technical disruption of the hardware and software that animate electronic commerce architectures	ACTUARINET will investigate the risks to non-patent intellectual property assets – trade marks, trade dress, trade secrets, and copyrighted works such as databases and software and the insurance instruments and technologies that will secure them	ACTUARINET will explore the role of transactional assurance in eBusiness. We will investigate how trading parties establish secure and auditable processes and controls for financial, business and government transactions

Research Foci

Multivariate Nature of Risks in Electronic Commerce. ACTUARINET asks how the multivariate nature of risks in electronic commerce will have to be addressed to inform the development of eBusiness-relevant insurance policies.

Limits to Public Key Infrastructure For every threat PKI aims to address, it misses others or creates new exposures. ACTUARINET investigates the risks that PKI either neglects or inflicts upon the electronic enterprise.

Future of Coverage: Broader Conventional Coverage or More e-Specific Policies? ACTUARINET proposes to survey the development plans and current policy offerings at major underwriters to define trends in insurance instrumentation.

Internet Complicates Insuring Copyrighted Intellectual Property. ACTUARINET proposes to examine the models that underwriters are marshalling to assess "damage" inflicted on copyrighted intellectual property via unauthorized re-distribution.

Handling the Moral Hazard of Electronic Commerce Insurance. What systems will have to be established to prevent fraudulent claims from being made successfully? Can e-arson for profit be prevented?

Can Underwriters Arrest the Slide in Software Quality? ACTUARINET explores the roles the insurance industry could play in improving software quality via premium pricing.

The Expanding Liabilities Associated with Privacy Laws and Other Consumer Regulations. ACTUARINET surveys the perils that are associated with privacy laws and other forms of consumer-level regulations.

Evidentiary Authority in Accounting, Litigation and Insurance Claims. ACTUARINET asks how do trading and contracting parties design systems that create and preserve forensic evidence and mutually endorsed accounting data to make their business transactions authenticatable and bilaterally auditable.

Risk managers and peril holders can achieve new insight into identifying, measuring and managing risks that arise from within the e-commerce architectures that they build and maintain, be they technologists, eBusiness architects, market makers, copyright holders or developers of financial risk management instrumentation.

ACTUARINET's research products on eBusiness risk assessment and mitigation would provide vital benchmarks and points of reference for all stakeholders, helping them quantify risks that are only beginning to be effectively defined.

Who Should Get Involved?

Risk managers, insurance brokers, consulting and accounting firms, law firms, insurance companies, media companies, information technology developers, government agencies, banks and other mediators of financial transactions all have important roles to play in informing, supporting and cultivating their own e-risk savviness by joining the ACTUARINET project.

How Do You Get Involved?

There are three ways to join the program though they are not mutually exclusive.

■ Corporate Membership

Businesses can participate in and sponsor the work by becoming a Member of ACTUARINET. For more information, see contact details on the back page.

■ Research Affiliates Council

Researchers can collaborate with us on ACTUARINET's core topics – or propose new joint research that relates directly to ACTUARINET's overall purview.

■ Individual Contributor

Individual participants can join ACTUARINET's public mailing lists, online discussion forums or attend ACTUARINET events.

How Do You Get Started?

Talk to us. Sponsors can join as a Corporate Member of ACTUARINET, availing themselves of: deeper participation in our activities; resources available through ACTUARINET and at MIT; as well as recognition of your sponsorship and Membership on our web site and other publications. Researchers at academic and other qualified organizations exploring relevant topics may participate in collaborative work or joint projects. Research collaborators can join our Research Affiliates Council by entering a memorandum of understanding with ACTUARINET.

If you or your organization would like more information or would like to be notified of future developments, please contact:

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Overview of ACTUARINET's Expected Activities

- Original research into risk management vehicles for eBusiness and digital intellectual property, based upon systems design, security technologies, business practices, legal measures and insurance
- Issues Briefings, Panel Discussions and other events on campus
- Live and archived web-based seminars and interactive discussion of ongoing findings
- Bound hardcopy of ACTUARINET research product published at the end of the research program cycle
- Web site with the following content components:
 - Presentations to trade conferences and other venues
 - Database taxonomy and analysis of electronic commerce insurance policies
 - Contributed commissioned articles & previously published articles of high relevance to ACTUARINET's research focus
 - Bibliography of works consumed in prosecution of the research program & citations for relevant articles
- Listserv discussion forum for the public and relevant practitioners
- Academic Course Modules for graduate class on E-Commerce Architecture