

ECE994 Programmable System on a Chip (PSoC or FPGA)



GNAT (GLOBAL NETWORK ACADEMIC TEST)

“A glimpse at future scenarios when designers have an option to design “intelligent” infrastructure.”

By Dale Ferriere



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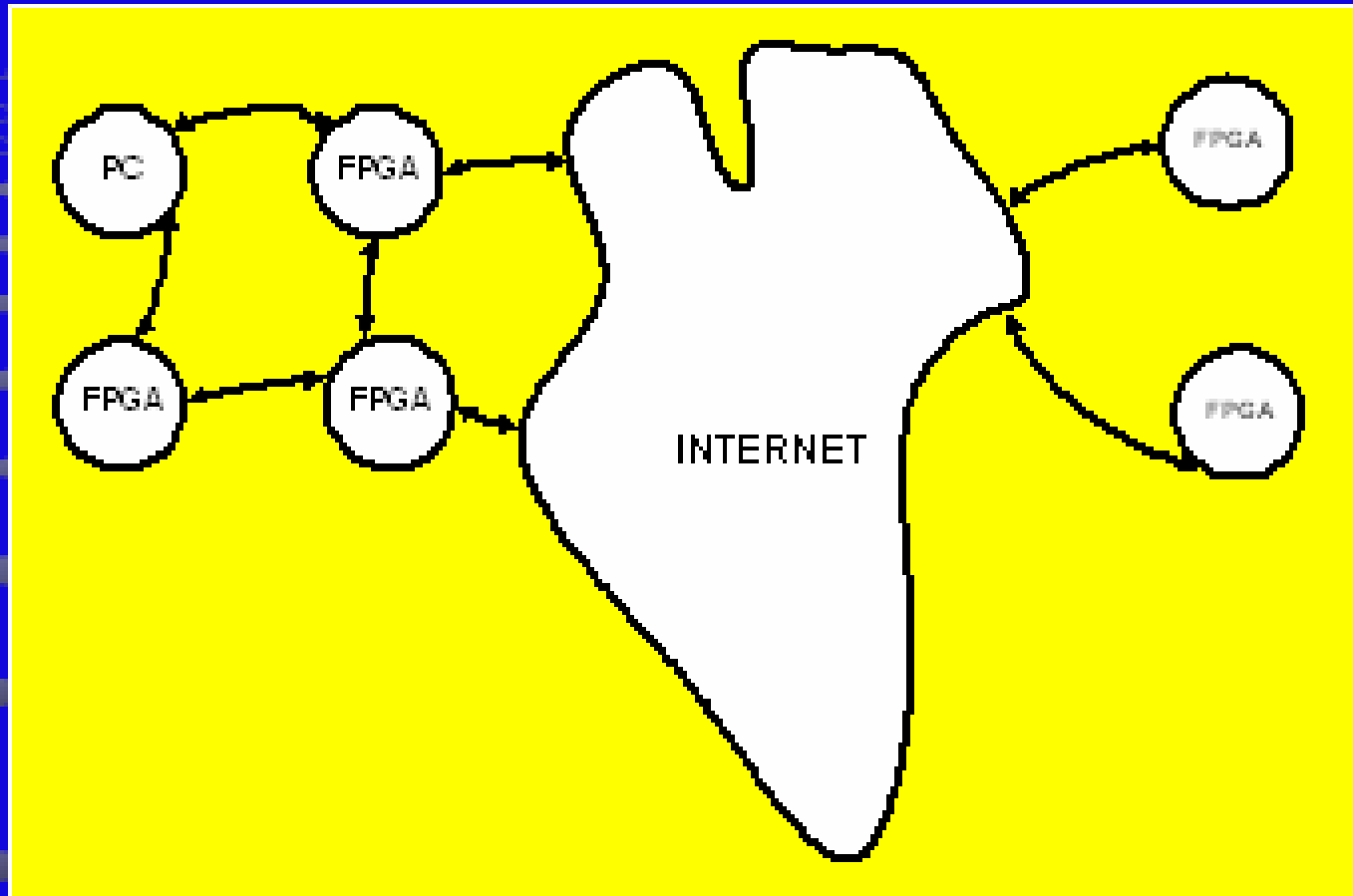
for this presentation.....



.....GNAT

represents

- Dynamically programmable sensors
- Networked by FPGAs (PSoCs)
- Made ubiquitous to infrastructure & transportation
- Outputs subject to remote observation &
- Outputs subject to real-time analysis

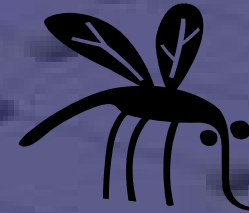


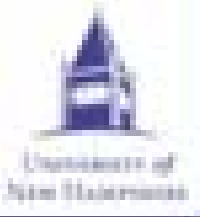
System Node Diagram

Lennart E. Long

12-7-06

What if the "BIG DIG" was intelligent?





“Networked pressure transducers and accelerometers could tell us in real-time when critical infrastructure is not safe and thusly, save lives.”



GNAT





What if there were *i-CONTAINERS*?
Answer: **SECURE** supply chains.





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CONCLUSION:

“When design methodology (programmable code) for FPGAs (PSoCs) is understood and accessible to policy makers and with minimal assistance they are able to dynamically configure sensor networks in the field (ambient intelligent infrastructure), safety and security will be greatly enhanced.”