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# INTUITIVE DRIVER PROXY CONTROL USING ARTIFICIAL INTELLIGENCE

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**Abstract**

In the area of Wireless Communication, Traffic congestion is one of the leading causes of lost productivity and unwanted problems. Considering the transmission of wireless networks as traffic management, the artificial intelligence is deployed. The existing system gives a reservation based system for alleviating traffic congestion. This proposed system focuses on using intelligence at both the ends, the manager end as well as the driver end. In particular this project identifies some features such as adding the ability of data packets to turn, enable them to accelerate while in the intersection and augment their interaction capabilities with a detailed protocol such that the control policy. The use of this protocol limits the interaction of the driver agent and the intersection manager to the extent that it is a reasonable approximation of reliable wireless communication. The intersection control policies are also implemented using Intelligence techniques.

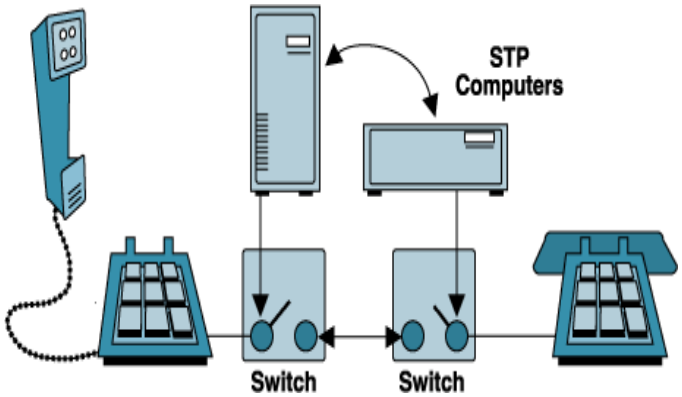
**Introduction**

In computer science, a multi-agent system (MAS) is a system composed of several agents, collectively capable of reaching goals that are difficult to achieve by an individual agent or monolithic system. The exact nature of the agents is a matter of some controversy. They are sometimes claimed to be autonomous. For example a household floor cleaning robot can be autonomous in that it is dependent only on a human operator to start it up. On the other hand, in practice, all agents are under active human supervision. Furthermore, the more important the activities of the agent are to humans, the more supervision that they receive. In fact, autonomy is seldom desired. Instead interdependent systems are needed. There is no generally accepted definition of artificial intelligence "agents." But practitioners know them when they see

them. In loose terms, agents are programs that (i) sense their environment, (ii) make decisions about how to act based on these sensations, and (iii) then execute these actions. Autonomous agents do all three of these steps on their own, i.e. without a human in the loop. Multiagent systems are collections of multiple agents that interact with one another.

**Common Channel Signalling**

In CCS, one channel is dedicated to control one or more data channels. For example, in the PSTN one channel of a communications link is typically used for the sole purpose of carrying signaling for establishment and tear down of calls. The remaining channels are used entirely for the transmission of voice data. In most cases a single 64kbit/s channel is sufficient to handle the call setup and call teardown traffic for numerous voice and data channels. The logical alternative to CCS is Channel Associated Signaling (CAS), where each bearer channel has a signalling channel dedicated to it [1].




**Secure causal atomic broadcast**

It is a variation of atomic broadcast. This is a robust atomic broadcast protocol that tolerates a Byzantine adversary and also provides secrecy for messages up to the moment at which they are guaranteed to be delivered. Thus, client requests to a trusted service using this broadcast remain confidential until they are answered by the service. This is crucial in our asynchronous environment for applying the state machine replication method to services that involve confidential data. Secure causal atomic broadcast (SC-ABC) is a useful protocol for building secure applications that use state machine replication in a Byzantine setting. It provides atomic broadcast, which ensures that all recipients receive the same sequence of messages, and also guarantees that the payload messages arrive in an order that maintains “input causality". Informally, input causality ensures that a Byzantine adversary may not ask the system to deliver any payload message that depends in a meaningful way on a yet undelivered payload sent by an honest client. This is very useful for delivering client requests to a distributed service in applications that require the contents of a request to remain secret until the

system processes it. Input causality is related to the standard causal order which is a useful safety property for distributed systems with crash failures, but is actually not well defined in the Byzantine model. Input causality can be achieved if the sender encrypts a message to broadcast with the public key of a threshold cryptosystem for which all parties share the decryption key. The cipher text is then broadcast using an atomic broadcast protocol; after delivering it, all parties engage in an additional round to recover the message from the cipher text [2]. In our description of secure causal atomic broadcast, one of the parties acts as the sender of a payload message. If SC-ABC is used by a distributed system to broadcast client requests, then encryption and broadcasting is taken care of by the client. In this case, additional considerations are needed to ensure proper delivery of the replies from the service [3].

**Kohonen Algorithm**

The self-organizing map (SOM) is a subtype of artificial neural networks. It is trained using unsupervised learning to produce low dimensional representation of the training samples while preserving the topological properties of the input space. This makes SOM reasonable for visualizing low-dimensional views of high-dimensional data, akin to multidimensional scaling. The model was first described by the Finnish professor Teuvo Kohonen and is thus sometimes referred to as a Kohonen map. The self-organizing map is a single layer feed forward network where the output syntaxs are arranged in low dimensional (usually 2D or 3D) grid. Each input is connected to all output neurons. Attached to every neuron there is a weight vector with the same dimensionality as the input vectors. The number of input dimensions is usually a lot higher than the output grid dimension. SOMs are mainly used for dimensionality reduction rather than expansion.

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