

IOPHub Project Glossary



Version 1.0
June 21, 2007

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Revision History

Author	Revision Date	Revision #	Reason for Change
ETC	06/21/2007	1.0	Initial Document



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This document contains the definitions and descriptions for the acronyms, abbreviations and common terminologies used in the IOPHub project.

Acronym/Term	Definition
ACK	Acknowledgement
ATM	Asynchronous Transfer Mode: A kind of high-speed network capable of transferring 150 million signals in a second by using the transfer protocol called 'asynchronous transfer mode'.
AVC	Automatic Vehicle Classification
AVI	Automatic Vehicle Identification: The radio frequency system that identifies vehicles utilizing AVI Tags as they pass fixed antenna or readers to automatically charge the toll to the end customer.
B2B	Business-to-Business: Automated processes between trading partners; performed in much higher volumes than business-to-consumer applications.
CTRMA	Central Texas Regional Mobility Authority
DAL	Dallas Love Field: The official airport code for Dallas Love Field Airport. In the context of this document, DAL refers to the implementation of AVI parking at Dallas Love Field.
Database Synchronization	To prevent physical disaster, all IOPHub databases need to have the same copy of data.
Destination-Authority	The name of the Authority receiving the file. The Authority can be Service Provider, Subscriber or IOPHub. The list includes: <ul style="list-style-type: none">• CTRMA – Central Texas Regional Mobility Authority• HCTRA - Harris County Toll Road Authority• IOPHub• NTTA - North Texas Toll Authority• TTA – Texas Turnpike Authority
DFW	Dallas/Ft Worth: The official airport code for the Dallas/Ft Worth International Airport. In the context of this document, DFW refers to the implementation of AVI parking at DFW International Airport.
DMV	Department of Motor Vehicle
DNS	Domain Name Server: A computer that can answer Domain Name System (DNS) queries. The DNS server keeps a database of host computers and their corresponding IP addresses.
DNS Mapping	Mapping one domain name to one or more IP addresses.
DS1	Digital Service Level 1: See T1.
DTD	Document Type Definition: Using XML, a DTD allows independent applications to use a common definition for interchanging data.
EAL	Acronym for Evaluation Assurance Levels (EALs), which defines a scale for measuring the criteria for the evaluation of protection profiles and security components. EALs are constructed from assurance components and provide an increasing scale of requirements that balance the level of assurance obtained with



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	<p>the cost and feasibility of acquiring that degree of assurance. The seven EALs are as follows:</p> <ul style="list-style-type: none"> • EAL1 - functionally tested • EAL2 - structurally tested • EAL3 - methodically tested and checked • EAL-4 - Methodically designed, tested and reviewed • EAL-5 - Semi-formally designed and tested • EAL-6 - Semi-formally verified, designed, and tested • EAL-7 - Formally verified, designed, and tested
EFT	Electronic Funds Transfer: Exchange of monetary funds electronically.
ETC	Electronic Toll Collection; a method of paying tolls electronically without human intervention.
ETCC	Electronic Transaction Consultants Corporation
Failover	System can tolerate subunit failure. If one subunit fails, it can switch to another subunit and continue to serve requests.
FTP	File Transfer Protocol: A commonly used protocol for exchanging files over any network that supports the TCP/IP protocol.
Gbps	Gigabits Per Second: A unit of data transfer rate equal to 1,000 megabits per second or 1,000,000 kilobits per second or 1,000,000,000 bits per second.
HA / HIA	Home Authority / Home Interoperability Authority
HAS	Houston Airport System: Parking solution implementation planned for Houston-area airports.
HCTRA	Harris County Toll Road Authority
Home Authority (HA)	An Authority that issues transponders to patrons, owns and manages accounts associated with those transponders, and posts transactions to those accounts.
HSP	Home Service Provider (See Service Provider)
HTTP	HyperText Transfer Protocol: Protocol used to carry requests from a browser to a Web server and to transport pages from Web servers back to the requesting browser. Although HTTP is almost universally used on the Web, it is not an especially secure protocol.
HTTPS	HTTP over SSL: A variation of HTTP that provides for encryption and transmission through a secure port. HTTPS allows HTTP to run over a security mechanism known as SSL (Secure Sockets Layer).
ICD	<p>Interface Control Document—Describes the relationship between two components of a system in terms of data items and messages passed, protocols observed, and timing and sequencing of events. For example, an ICD may describe the interaction between a user and the system, a software component, and a hardware device, or two software components,</p> <p>This type of document is typically used where complex interfaces exist between software components being developed by different teams.</p>
ILP	In Lane Processor
INTEROP	Interoperability implementation of AVI Tags between Home and Visited authorities.



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Interoperable Authority	An Authority that is a signatory to the Team-TX Memo of Understanding. This term is used when referring to both the Home and Visited Authorities.
Invalid Tag	The transponder associated with an account that has been terminated, suspended or has an insufficient balance or the tag is lost, stolen, returned or undefined. The Home Authority does not guarantee payment of toll transactions utilizing an Invalid tag.
ISP	Internet service provider: An organization that offers users access to the Internet and related services
LAN	Local Area Network: A computer network covering a small local area
LATA	Local access and transport area: A geographical area of the United States representing an area within which a regional Bell operating company is permitted to offer exchange telecommunications and access services.
Message	Data transferred from one point in the system to another.
Mbps	Megabit per Second: A unit of data transfer rate equal to 1,000,000 bits per second or 1,000 kilobits per second.
Non-Cooperating Authority	An Authority that may or may not have similar ETC technology and is not an Interoperable Authority.
NTTA	North Texas Tollway Authority
OpteMAN	A switched Ethernet service that connects LANs within the same metropolitan area with flexible bandwidth options from 5 Mbps to 1 Gbps.
Origination-Authority	The name of the Authority creating the file. The Authority can be Service Provider, Subscriber or IOPHub. The list includes: <ul style="list-style-type: none"> • CTRMA – Central Texas Regional Mobility Authority • HCTRA - Harris County Toll Road Authority • IOPHub • NTTA - North Texas Toll Authority • TTA – Texas Turnpike Authority
P2P	Peer-to-Peer Interoperability
Peer-to-Peer (P2P) Interoperability	An interoperability implementation that enables the participants to exchange and reconcile tolls and other transactions between them. This implementation requires a host server to perform most of the computational, networking, and database duties of the data exchange and information management.
Posted	Match a transaction to a Home Authority account and deduct the corresponding toll.
Pull	The receiver requests data to be sent from the sender.
Push	The sender sends data to the receiver without the receiver requesting the data.
Reconciliation	The process whereby a Home Authority and a Visited Authority resolve any discrepancies in arriving at Final Settlement.
RPC	Remote Procedure Call.
Service Provider (SP)	An Authority that operates and maintains a customer service center that issues AVI transponders for electronic payment of AVI transactions, such as toll road fees and parking fees. For this document, the Service Provider shall be defined as an Authority that sends transponder transactions and toll variance transactions to the IOPHub system for reconciliation. A toll authority that operates and maintains a



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	customer service center that issues AVI transponders for electronic payment of transportation transactions. The Home Service Provider (HSP) is the system that issues the tag. The Visited Service Provider (VSP) is the system that accepts the interoperable tags at its own lanes.
SGML	Standard Generalized Markup Language
SLA	Service Level Agreement
SOAP	Simple Object Access Protocol: A protocol for exchanging XML-based messages over a computer network, normally using HTTP.
SP	Service Provider
SSL	Secure Sockets Layer: A protocol developed for ensuring security and privacy in Internet communications. SSL supports authentication of client, server, or both, as well as encryption during a communications session. While the primary purpose of SSL is to enable secure electronic financial transactions on the World Wide Web, it is designed to work with other Internet services as well.
Subscriber	An Authority that utilizes a service provider to conduct customer service center operations. These types of Authorities do not maintain their own customer accounts, or operate a customer service center. An authority that employs a service provider to make available customer service center operations. The subscriber authority does not maintain its own customer accounts nor operate its own customer service center.
T1	Transmission Level 1: A T-carrier signaling scheme to transmit voice and data between devices.
Tag Validation List (TVL)	A comprehensive list of transponders issued by each interoperable Authority, as specified in the ICDs. A list of tag status changes since the last Tag Validation List Update or Tag Validation List. Note: The Visited Authority may apply the updated list to the most recent complete Tag Validation List in order to have a current list.
Tag Validation List (TVL) Update	A list of Tag Validation List (TVL) changes since the last TVL Update or TVL List, as specified in the this document. A list of tag status changes since the last Tag Validation List Update or Tag Validation List. Note: The Visited Authority may apply the updated list to the most recent complete Tag Validation List in order to have a current list.
TCP/IP	Transmission Control Protocol/Internet Protocol: The set of communications protocols that implement the Internet and most commercial networks.
Tolling Authority	An Authority who provides toll collection as a core business. Typically, the average amount is less than \$5.00.
TTA	Texas Turnpike Authority
TVL	Tag Validation List
TVLDS	Tag Validation List Data Set
VA / VIA	Visited Authority / Visited Interoperable Authority
Valid Transponder (Tag)	A transponder that may be used for payment of toll for which a Home Authority guarantees payment for a toll transaction.
VES	Violation Enforcement System
Violation Enforcement System (VES)	System to assist in the enforcement of toll violations using Automatic Vehicle Classification (AVC) activated by Lane Controller. VES subsystem captures



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	images of the vehicle as it travels through the lane. Images are saved based on the logic and rules of the Authority: single image, multiple images, front plate and rear plate. VES controller sends violation image to Violation Image Server.
Violation Toll (V-Toll)	A violation transaction that is posted to a valid customer account, based on a license plate image.
Violation Transaction	The passage of a vehicle through a toll lane without proper payment.
Visited Authority (VA)	Any Authority, or its designated representative, that is not the customer's Home Authority. The Visited Authority shall submit the transaction to the customer's Home Authority for posting.
VoIP	Voice Over Internet Protocol: The routing of voice conversations over the Internet or any other IP-based network
VPN	Virtual Private Network: A private communications network usually used within a company or by several different companies or organizations to communicate over a public network
VSP	Visited Service Provider (See Service Provider)
V-Toll	Violation Toll
Web Services	A modular collection of Web protocol-based applications that can be mixed and matched to provide business functionality through an Internet connection. Web services can be used over the Internet or an intranet to create products, business processes, and B2B interactions. Web services use standard Internet protocols such as HTTP, XML, and SOAP to provide connectivity and interoperability between computers.
WSDL	Web Services Description Language: An XML format published for describing Web services
XML	eXtensible Markup Language: A condensed form of SGML (Standard Generalized Markup Language). XML lets Web developers and designers create customized tags that offer greater flexibility in organizing and presenting information than is possible with the older HTML document coding system. XML is defined as a language standard published by the W3C and supported by the industry.