



To APEX Software Subcommittee **Date** February 10, 2017

From Scott L. Smith **Reference** 17-999/SMA-995 lth
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Subject **Meeting Announcement**
Application/Executive (APEX) Software Subcommittee

Chairmen Pierre Gabrilot, Airbus
Gordon Putsche, Boeing

When May 16-17, 2017 Tuesday and Wednesday from 0900 to 1700
May 18, 2017 Thursday from 0900-1300

Host Airbus is hosting the APEX Subcommittee meeting. They have made arrangements for the meeting space. Airbus will provide coffee each day, as well as lunch on Tuesday and Wednesday.

Where Meeting Location
Airbus Saint-Martin Campus
Building M01, Room S504
316 Route de Bayonne
31060 Toulouse cedex, France
Point of Contact
Pierre Gabrilot
email: pierre.gabrilot@airbus.com
tel: +33 5 61 93 58 04
Travel information is provided later in this APEX meeting announcement.

Hotel There is a good selection of hotels available to suit your budget and comfort needs. Some may have an Airbus preferred rate, so ask when making your reservations. See Attachment 1 for more information.

Instruction Please notify ARINC Industry Activities of your intention to attend the APEX Subcommittee meeting by registering online at:
<http://www.aviation-ia.com/events/>

To allow Airbus security time to build an access list, attendees must send the following information to Pierre Gabilot by **May 1, 2017**.

- Last Name
- First Name
- Company
- Citizenship Country
- Date of Birth
- Place of Birth
- Email address

A valid form of identification shall be presented at security check-in to be allowed to access the facility. Attendees will display their visitor badge always on the Airbus campus.

The meeting is open to all interested parties. Individuals requesting time on the agenda should contact Scott Smith. Any material intended to be circulated prior to the meeting should be submitted before **May 1, 2017**. The agenda will be finalized one week prior to the meeting.

Activity Scope

The APEX Subcommittee develops avionics software interface standards for Real Time Operating Systems (RTOS) used with Integrated Modular Avionics (IMA). The expected benefit is to improve avionics software development, integration, and engineering life-cycle. This guidance and requirements are documented in **ARINC Specification 653: Avionics Application Software Standard Interface**. This activity is authorized by APIM 16-009.

Meeting Objectives

The primary objective for the meeting is to focus on the preparation of avionics software operating system standards for multi-core microprocessor use in IMA. The content and actions for each part of ARINC Specification 653 is described below:

ARINC Specification 653, Part 0: Overview of ARINC 653

- Supplement 1 to ARINC Specification 653 Part 0 was published August 2015. The document may be modified at this meeting to reflect changes as work continues in one or more of the other parts.

ARINC Specification 653, Part 1: Required Services

- Supplement 4 to ARINC 653 Part 1, Required Services, defines services that enable single and multi-core processors to use the Application Program Interfaces (API). The group will continue work on updating the document with additional multi-core capabilities, including:
 - Defining methods of parallel initialization
 - Defining methods of processing sub-schedules in core clusters
 - Developing as a revised XML schema.

ARINC Specification 653, Part 2: Extended Services

- Supplement 3 to ARINC 653 Part 2, Extended Services, defines optional services and new APIs for single and multi-core processors. The group will continue work on updating the document with additional

multi-core capabilities, as well as a revised XML schema. This work will be related to the material developed for ARINC 653, Part 1.

ARINC Specification 653, Part 3A: *Conformity Test Specification for Required Services*

- This document was published by ARINC IA in January 2014. It is considered stable. As work continues on ARINC 653, Part 1, the document may need to be modified to reflect those modifications.

ARINC Specification 653, Part 3B: *Conformity Test Specification for Extended Services*

- ARINC Project Paper 653 Part 3B, Conformity Test Specification for Extended Services, may be reviewed. The changes in ARINC 653, Part 2 are the drivers for the work required in Part 3B.

ARINC Specification 653, Part 4: *Subset Services*

- ARINC Specification 653, Part 4, was published in June 2012. Although this standard is considered stable, the document may need to be modified to reflect changes as work continues in ARINC 653, Part 1.

ARINC Specification 653, Part 5: *Core Software Required Capabilities*

- ARINC Project Paper 653 Part 5, was published December 2014. Although the document is considered stable, it may need to be modified to reflect changes as work continues in ARINC 653, Part 1.

The APEX Subcommittee will discuss potential topics that could modify each ARINC Specification 653. Topics may include:

- Discussions on parallel initialization
- Discussions on multiple concurrent partition execution
- 64-bit support
- Revise XML specifications to remove portability issues
- Virtualization of processor cores
- Affinity No Preference for normal processes
- Affinity ANY for the error process

The goal of the meeting is to review modifications to the ARINC 653 standard set and continue to plan the work needed to complete APIM 16-009. Modifications on all parts is intended to be complete by September 2019.

Travel Information

The meeting site is located about 6 miles (10 km) from the Toulouse, France, city center. The Aéroport Toulouse-Blagnac (TLS) serves a variety of airlines. Alternately, Toulouse is served by train services reaching all of Europe.

See the meeting Attachments for maps to assist with your travel.

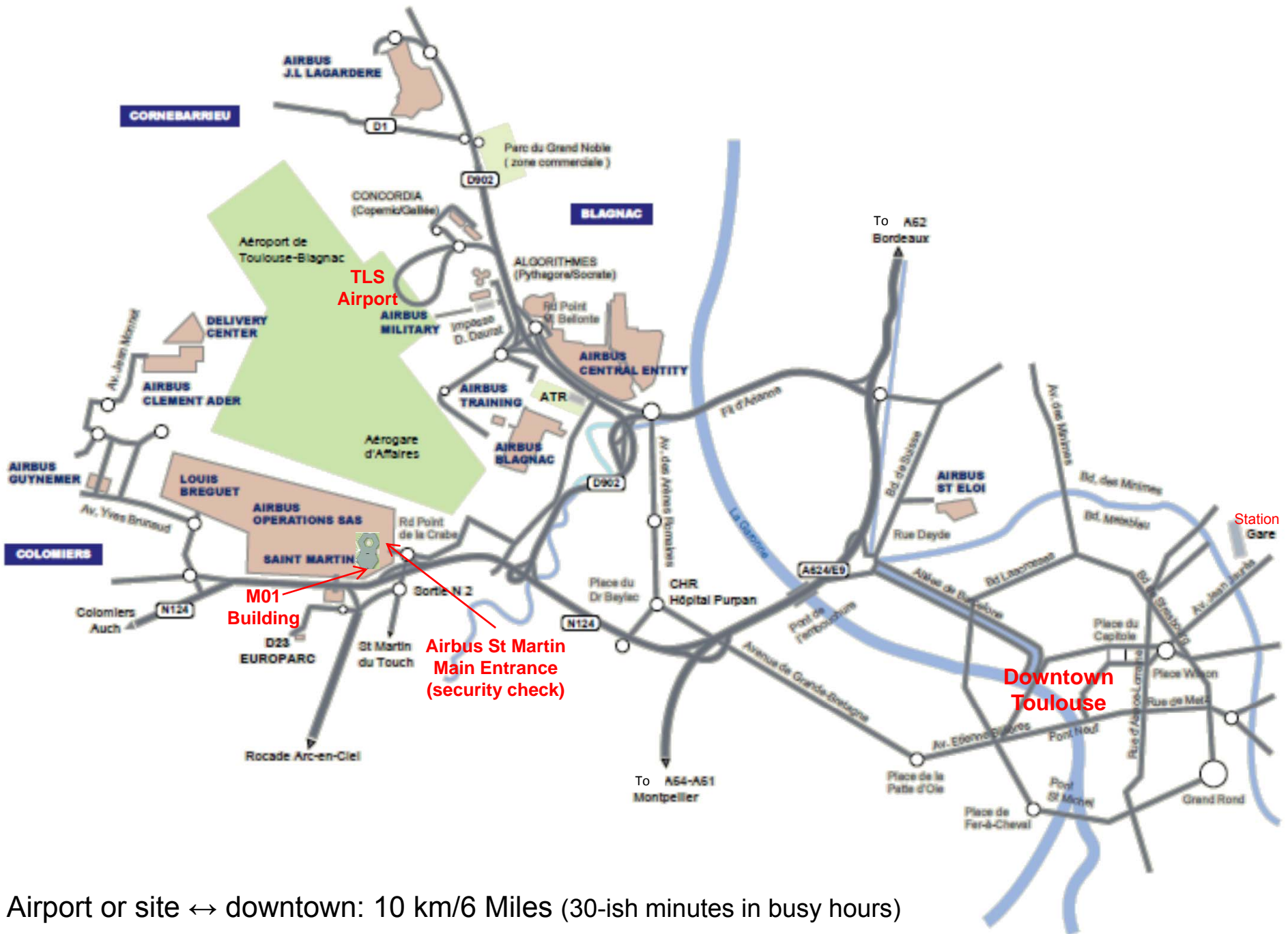
cc

SAI Subcommittee

Attachment 1

Place	Cat.	Name	Address	Website	Phone	Fax
DOWNTOWN TOULOUSE						
Downtown Toulouse	5*	Le Grand Balcon	8, Rue Romiguières 31000 Toulouse	http://www.grandbalconhotel.com/	+33 5 34 25 44 09	+33 5 61 23 50 33
Downtown Toulouse	5*	Pullman Toulouse Centre	84, Allées Jean Jaurès 31000 Toulouse	http://www.pullmanhotels.com/fr/hotel-1091-pullman-toulouse-centre/index.shtml *	+33 5 61 10 23 10	+33 5 61 10 23 20
Downtown Toulouse	4*	Crowne Plaza	7, Place du Capitole 31000 Toulouse	http://www.ihg.com/crowneplaza/hotels/us/en/toulouse/tlsfr/hoteldetail	+33 5 61 61 19 19	+33 5 61 23 79 96
Downtown Toulouse	4*	Grand Hôtel de l'Opéra	1, Place du Capitole 31000 Toulouse	http://www.grand-hotel-opera.com/fr/index.php	+33 5 61 21 82 66	+33 5 61 23 41 04
Downtown Toulouse	4*	Mercure Saint Georges	Rue Saint-Jérôme Place Occitane 31000 Toulouse	http://www.accorhotels.com/fr/hotel-0370-hotel-mercure-toulouse-saint-georges/index.shtml	+33 5 62 27 79 79	+33 5 62 27 79 00
Downtown Toulouse	4*	Mercure Wilson	7, Rue Labéda 31000 Toulouse	http://www.accorhotels.com/gb/hotel-1260-mercure-toulouse-wilson-hotel/index.shtml	+33 5 34 45 40 60	+33 5 34 45 40 61
Downtown Toulouse	4*	Novotel Centre	15, Place Wilson 31000 Toulouse	http://www.accorhotels.com/gb/hotel-8505-novotel-toulouse-centre-wilson/index.shtml	+33 5 61 10 70 72	+33 5 61 21 96 70
Downtown Toulouse	4*	Novotel Compans Caffarelli	5, Place A. Jourdain 31000 Toulouse	http://www.accorhotels.com/fr/hotel-0906-novotel-toulouse-centre-compans-caffarelli/index.shtml	+33 5 61 21 74 74	+33 5 61 22 81 22
Downtown Toulouse	4*	Palladia	271, Avenue de Grande-Bretagne 31300 Toulouse	http://www.hotelpalladia.com	+33 5 62 12 01 20	+33 5 62 12 01 21
Downtown Toulouse	4*	Le Grand Hotel Capoul	13, Place Wilson 31000 Toulouse	http://www.capoul.com/	+33 5 61 10 70 70	+33 5 61 21 96 70
Downtown Toulouse	3*	At Home	7, Rue du Pont Montaudran 31000 Toulouse	http://www.athome-ah.com/	+33 5 34 41 76 50	+33 5 61 63 08 89
Downtown Toulouse	3*	Hôtel de Brienne	20, Boulevard Maréchal Leclerc 31000 Toulouse	http://www.hoteldebrienne.com/fr/hotel-design-toulouse-site-officiel.php	+33 5 61 23 60 60	+33 5 61 23 18 94
Downtown Toulouse	3*	Mercure Atria	8, Esplanade Compans Caffarelli 31000 Toulouse	http://www.accorhotels.com/fr/hotel-1585-hotel-mercure-toulouse-compans-caffarelli/index.shtml	+33 5 61 11 09 09	+33 5 61 23 14 12
Downtown Toulouse	3*	Adagio Parthenon	86, Allées Jean Jaurès 31000 Toulouse	http://www.accorhotels.com/fr/hotel-1910-aparthotel-adagio-toulouse-parthenon/index.shtml	+33 5 61 10 24 00	+33 5 61 10 24 20
Downtown Toulouse	2*	Le President	43 rue Raymond IV 31000 Toulouse	http://www.hotel-president.com/	+33 5 61 63 46 46	+33 5 61 62 83 60
CLOSER TO THE AIRBUS SITE						
Saint Martin du Touch	4*	Courtyard Marriott Hotel	4 bis, Rue Alain Fournier 31300 Saint Martin du Touch (walking distance from Airbus)	http://www.marriott.fr/hotels/travel/tlscy-courtyard-toulouse-airport/	+33 5 34 39 80 00	+33 5 34 39 80 40
Blagnac	4*	Radisson Blu	2, Rue Dieudonné Costes 31700 Blagnac	http://www.radissonblu.fr/hotel-toulouseairport?facilitator=BLGMOUHMEDIAR&EZIDOR&qclid=CMY7tu_r5sMCFdMatAodsn0Ayw&csref=g_fr_sk_brand_3_tlszq	+33 5 61 16 18 00	+33 5 61 16 18 22
Blagnac	3*	Quality Suites Toulouse Nord-Ouest	Lieu-dit Mandillet 2, chemin de la Plane 31700 Cornebarrieu	http://www.choicehotels.fr/fr/quality-suites-toulouse-nord-ouest-cornebarrieu-hotel-fr489	+33 5 62 22 28 41	+33 5 62 22 28 37
Blagnac	4*	Holiday Inn Airport	Place de la Révolution 31700 Blagnac	http://www.ihg.com/holidayinn/hotels/fr/fr/toulouse/tlsap/hoteldetail	+33 5 34 36 00 20	+33 5 34 36 00 30
Blagnac	4*	Pullman Airport	2, Avenue Didier Daurat 31700 Blagnac	http://www.pullmanhotels.com/fr/hotel-0565-pullman-toulouse-airport/index.shtml	+33 5 34 56 11 11	+33 5 61 30 02 93
Blagnac	3*	Holiday Inn Express Airport	39, Avenue du Général De Gaulle 31700 Blagnac	http://www.ihg.com/holidayinnexpress/hotels/us/en/blagnac/tlspr/hoteldetail?qRef=sr&qDest=Toulouse%2C+France&qRpn=1&qChld=0&qSrt=sBR&qSHp=1&qSmP=3&qGRM=0&qLng=1.4429&qRdU=0&qRms=1&srb_u=1&qAdlt=1&qPSt=0&qFRA=1&qRtP=6C&BARC&qLat=43.6045&qRmP=3&qRRSrt=rt&qRad=50&qRpp=12&qBrs=ex.hi.rs.cv.ic.cp.in.vn.sb.cw.ul.6c&qWch=0&icdv=99612391	+33 5 61 31 06 00	+33 5 61 31 06 01
Blagnac	2*	Kyriad Hotel	4, Rue Raymond Grimaud 31700 Blagnac	http://www.kyriad.com/fr/hotels/kyriad-toulouse-blagnac-aeroport	+33 5 61 71 41 71	+33 5 61 71 97 42

Attachment 2



Airport or site ↔ downtown: 10 km/6 Miles (30-ish minutes in busy hours)