





# Rio 2016 Spectrum Guidance for Games Time - V2.2

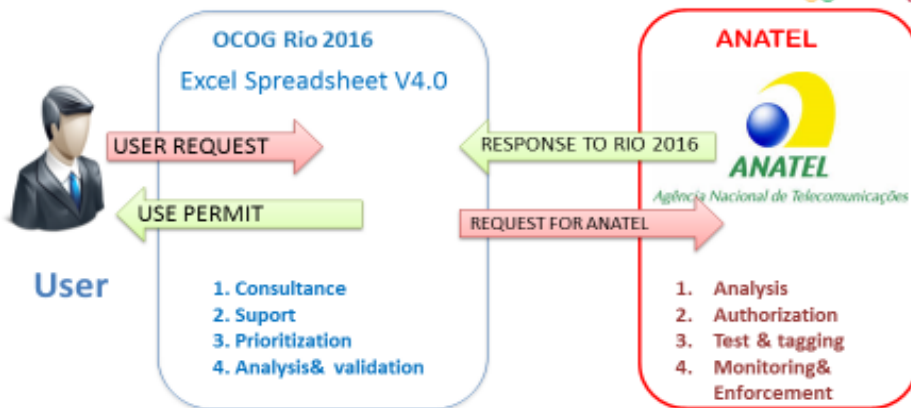
25 July - 18 September 2016

Spectrum Management - AF - Telecom

# Spectrum management logical model for the 2016 Games



## HOW – AUTHORIZATION PROCEEDINGS



Authorisations for temporary use of spectrum by members of the Olympic and Paralympic family will be issued by Anatel on behalf of Rio 2016, who will be legally responsible for them.

# Spectrum request



Any user wishing to use wireless equipment must apply for radiofrequency coordination by submitting their equipment specifications.

Complete forms and accurate information will help expedite the coordination process.

[spectrumoperations@rio2016.com](mailto:spectrumoperations@rio2016.com) is the correct communication channel between users and Rio 2016 for radiofrequency requests . Completed orders should be submitted to this email address as soon as possible, in order to have authorisation on time.

For details on spectrum request, consult the **Spectrum Newsletter 6/2015 - Rio 2016 Spectrum application Guide**.

During Games time, accredited Rio 2016 users will be able to apply for last minute radio frequency coordination through the spreadsheet V 4.0, available for immediate download.

# Spectrum request



## How can I make a licence application during Games time?

A licence request may be made by the spectrum applicant through the Excel spreadsheet V4.0, available for download at <http://www.rio2016.com/transparencia/en/documents>, in the following circumstances:

- (i) Relicence if user is experiencing interference on the authorised spectrum
- (ii) A failed test and tagging
- (iii) No licence available for the equipment the user brought and intends to access the Rio 2016 venues

# Spectrum request



## How can I make a licence application during Games time?

Case (i):

- In the case of an interference is present, the user must initially report the incident to the technology service desk, either by emailing [servicedesk@rio2016.com](mailto:servicedesk@rio2016.com) or calling 0800 7222016. Anatel personnel in the Rio 2016 technology offices will proceed after identifying the incident's severity level.
- Once a report has been received, spectrum management and more specifically Anatel teams will promptly proceed to identify the cause and a solution for the issue, and if necessary provide an alternative spectrum, allowing the user to continue running their operations.
- A new available frequency in that spectrum range will then be immediately assigned.
- Assignment procedures will be conducted based on the available information at the time and place where the spectrum is being operated, and will be processed case by case.
- After testing and approving the availability for the new proposed frequency(ies), the user must immediately make a request by emailing the spreadsheet form to [spectrumoperations@rio2016.com](mailto:spectrumoperations@rio2016.com) in order to formalise that application.

# Spectrum request



## How can I make a licence application during Games time?

Cases (ii) and (iii):

- Spectrum team and more specifically Anatel personnel working in the technology offices will make all effort to support clients with their spectrum needs.
- Premise is to provide the required spectrum approval or rejection on the same day the application is made, provided the application is submitted early that morning.
- It is important to note that spectrum availability is very low at this time.
- There is no guarantee of succeeding for an assignment for last minute Games time orders and requests will be processed on a best-effort basis.
- Anatel teams on the spectrum desks are not authorised and will not proceed with any configurations and/or set up for users' equipment stated for licensing and test and tagging.

# Spectrum request



## How can I make a licence application during Games time?

General:

- Games-time requests must be made by completing Excel spreadsheet V 4.0, available for download at: <http://www.rio2016.com/transparencia/en/documents>
- Submit applications by emailing [spectrumoperations@rio2016.com](mailto:spectrumoperations@rio2016.com)
- Anatel personnel working on frequency application processing will make all efforts to guarantee prompt processing for late requests
- Note that, mainly for new applicants, full contact information is essential in the “General Information” field on the Excel spreadsheet form.
- Upon receiving the Authorisation Act, print the document and contact the respective spectrum desk to proceed with the test and tagging (T&T) process.
- In the case of a failed T&T and denied applications, bring the unlicensed equipment for a “DO NOT USE” tag.



## The image displays the official logos for the Rio 2016 Olympic and Paralympic Games. On the left, the Olympic logo features a stylized, colorful figure in green, yellow, and blue, positioned above the text "Rio 2016" and the Olympic rings. On the right, the Paralympic logo features a stylized, colorful figure in red, orange, and yellow, positioned above the text "Rio 2016" and "PARALYMPIC GAMES", with the Paralympic symbol below.

Applicants requiring last minute spectrum orders during Games time must use the document “**Rio 2016 - Radio Frequency Application Form – V4.0**” available for download at <http://www.rio2016.com/transparencia/en/documents>. Requested administrative and technical data should be completed in order for the application to be successful.

[illegible][illegible]

# Test & Tagging (T&T) for temporary use



Access to Rio 2016 venues will only be allowed for RF equipment that has been previously authorised and properly identified with a tag.

Any user in the possession of unauthorised and non-tagged equipment will not be granted access to venues. The security team will inspect devices at entrances to all Games venues, verifying whether items are on the list of restricted devices.

All spectrum users must operate in accordance with the terms of their authorisations, including transmitting at the frequency licensed in advance, and using equipment duly tested and tagged by Anatel.

# Test & Tagging (T&T) for temporary use



Spectrum desks (TEC 300) are located in the following venues:

- International Broadcast Centre (IBC)
- Main Press Centre (MPC)
- Olympic and Paralympic Village (OLV)
- Uniforms and Accreditation Center (UAC)
- Riocentro Common Domain (RID)
- Fort Copacabana (FTC)
- Lagoa Stadium (LAG)
- Marina da Glória (GLO)
- Olympic Stadium (OLS)
- Maracanã (MRC)
- Deodoro Common Domain (DCD)
- Mané Garrincha Stadium (MGA) - Brasília
- Mineirão (MIN) - Belo Horizonte
- Fonte Nova Arena (FNA) - Salvador
- Itaquera Arena (SPA) - São Paulo
- Amazônia Arena (AMZ) - Manaus

Tag nomenclatures identify venues the radio equipment is allowed to access

FACILITIES	TAG NOMENCLATURES
All venues	ALL
Barra Olympic Park / Riocentro / Olympic and Paralympic Village	BOP
Pontal / Olympic Golf Course	RDB
International Broadcast Centre / Main Press Centre / Studio Tower	IBC
Marina da Glória	GLO
Fort Copacabana / Beach Volleyball Arena	COP
Lagoa Stadium	LAG
Deodoro Olympic Park	DEO
Olympic Stadium	OLS
Maracanã / Maracanãzinho	MAP
Sambódromo	SBD
Ceremonies	CER
Mané Garrincha Stadium	MGA
Corinthians Arena	SPA
Mineirão	MIN
Fonte Nova Arena	FNA
Amazônia Arena	AMZ
	STORAGE ONLY
	DO NOT USE

# Test & Tagging (T&T) for temporary use



## Spectrum Desks Operating Periods and Hours

SPECTRUM DESKS AT VENUES	OPERATING PERIOD	OPERATING HOURS
International Broadcast Centre (IBC)		7.00am to 10.00pm
Main Press Centre (MPC)		
Olympic and Paralympic Village (OLV)		
Riocentro Common Domain (RID)		8.00am to 8.00pm. Operating hours may change based on the schedule for the end of competitions in each venue.
Fort Copacabana (FTC)		
Olympic Stadium (OLS)	OLY - 22/7 to 21/8	
Marina da Glória (GLO)	PAR - 30/8 to 14/9	
Lagoa Stadium (LAG)		
Deodoro Aquatics Centre (DAQ)		
Mané Garrincha Stadium (MGA) - Brasília		
Mineirão (MIN) - Belo Horizonte		
Fonte Nova Arena (FNA) - Salvador		
Corinthians Arena (SPA) - São Paulo		
Amazônia Arena (AMZ) - Manaus		
Uniforms and Accreditation Centre (UAC)		
Maracanã (MRC)	OLY - 22/7 to 21/8	
	PAR - 30/8 to 18/9	

# Enforcement & monitoring for temporary use



Any non-compliance with authorisation and T&T as mentioned before will signify an irregularity in Brazil, leading Anatel to demand an immediate interruption to transmissions, and the “DO NOT USE” tag will be attached to the equipment involved. The user must then rectify the irregularity and go to one of the spectrum desks for further testing and possible tagging.

Stricter enforcement measures may be taken in accordance with applicable Brazilian legislation, including the seizure of the user’s equipment and the filing of criminal charges. In this case, Rio 2016 may immediately cancel this user’s access accreditation.

Spectrum is being monitored throughout the course of the 2016 Games.

# Private wi-fi networks



Users who intend to deploy private Wi-Fi networks must request coordination with Rio 2016. Requests must be made via the spreadsheet form V 4.0.

Private WI-FI service is allowed only where a cable solution is not possible or is non-practical.

Rio 2016 operational services have total priority over possible public and private networks in the spectrum planning process. For this reason, there are no guarantees of successful applications nor quality of service for private networks.

For details on private Wi-Fi, consult the **Spectrum Newsletter 5/2015 – Rio 2016 Games Time Policy for Private Wi-Fi.**

# Final recommendations



- Consult the Spectrum Plan and Newsletters for further clarification. It can be found and downloaded from <http://www.rio2016.com/transparencia/documentos> (PT) or <http://www.rio2016.com/transparencia/en/documents> (EN).
- Report possible spectrum issues as soon as possible.
- Note that spectrum incidents, like any other technology incident, should be reported through the service desk, either by emailing [servicedesk@rio2016.com](mailto:servicedesk@rio2016.com) or by calling 0800-722-2016.
- Contact [testandtag@anatel.gov.br](mailto:testandtag@anatel.gov.br) for further clarification on the test and tagging procedures
- Contact [spectrum@rio2016.com](mailto:spectrum@rio2016.com) for further clarification on frequency coordination.

# Obrigado

[rio2016.com](http://rio2016.com)

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