

## NEW EQUIPMENT AND SYSTEM APPROVAL CERTIFICATE

**Certificate No. S01-1110-125**

**Approval date** 20/08/2012  
**Approved by** Safety and Environment Committee  
**Report no.** TAR 01-1110-125  
**Report date** 09/07/2012

*This certificate is issued to*

**Supplier** Ansaldo STS  
11 Viola Place, Eagle Farm  
QLD, Australia, 4009  
Tel: +61 7 3868 5421

*In respect of*

**Manufacturer** Ansaldo STS Australia Pty Ltd  
**Product description** Phoenix Train Order System (PTOS)  
**Item identification** TOS Version 1.0.5  
**Application** ARTC Network – Victorian Rules  
**Relevant Standards** TA20 Rule Book  
ESD-08-01 Train Order Working  
EN50128 Railway Applications – Communication, signalling and processing systems – Software for railway control and protection systems

### **Conditions of Approval**

1. Only versions of Software for PTOS V 1.0.5 detailed in Attachment 1 may be used in service at Broadmeadow. Any changes to software versions to be reviewed and approved prior to use.
2. For use in accordance with ARTC signalling standard ESD-08-01 Train Order Working and revised TOW Network Rules.
3. That the Conditional Proceed Authority (CPA) is not to be used. It's use may be limited by the network geography implemented in the application data or otherwise inhibited in software.
4. That the NSW Track Occupancy Authority Form on the PTOS be updated to the new form in the NSW Network Rules or alternatively that agreement is reached with the Rail Regulator to use the form as implemented (which does not include all of the recent updates).
5. That PTOS System requires appropriate network geography for correct operation, That the network track geographical data is under design management processes for the corridor or line section being implemented. This includes design checking and verification.

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6. That training of Network Controllers be undertaken in accordance with the PTOS Training Materials developed as part of the project.
7. That training of network maintenance staff be undertaken in accordance with the PTOS Training Materials developed as part of the project.
8. That all vehicle operators and staff responsible for track access are trained in the use of authorities for PTOS. Training materials have been developed for this.
9. That the new Network Rules for Train Order Working are adopted in Victoria, South Australia and Western Australia prior to its implementation in those parts of the ARTC network. This would involve the application of TOA and LPA in these states.
10. Close out of KRJA remedial action for code review.


*All application design of the use of this system is undertaken in accordance with ARTC Standards and Procedures by competent persons.*

*ARTC reserves the right to conduct its own audit of the manufacture and supply of these components to AS 19011.*

*Any subsequent change to the system design, or changes to network rules affecting PTOS is not covered by this approval. The manufacturer should notify ARTC of any modification or changes in order to obtain a valid updated certificate.*

**Note/Comments**            NIL.

**Issue date**                            7 March 2017                            **Expiry date**    Not applicable

**Issued by**                                                        **John Furness**  
ARTC Manager Standards

### Approved Item List

Phoenix Train Order System –Software Configuration

No.	Name	Specification
1	System Release	SYS_REL_1_0_5
2	TCS Subsystem Release	TCS_REL_1_0_9
3	TOM Subsystem Release	TOM_REL_1_1_6
4	FD Subsystem Release	FD_REL_1_0_3
5	XSD	XSD_REL_1_0_0
6	TOM Database Release	TOM_DB_REL_BMD_1_0_0
7	TCS Application Data Broadmeadow	TCS_DATA_BMD_REL_0_13_0
8	Mile End Application Data	0.2
9	TOM App Data (Broadmeadow)	TOM_APP_ROUTEPARTS_BMD_REL_0_13_0
10	FD Data Release	FD_DATA_REL_1_0_2
11	MS.NET Framework	3.5
12	MS SQL Server	2005 SP2 64 bit standard
13	IIS	7.0
14	Visual C Runtime Libraries	9.0.30729.17
15	MS SQL	2005 SP2 64 bit standard
16	Nunit	Version 2.5.2.9222
17	Reshaper	Version 4.5