Appendix 9

PARTIAL ACCEPTANCE TEST - PAT

General
1. A different PAT is to be done for each individual AAN, AGGN and ISPCN.
2. First PAT is possible when at least one AAN, AGGN and ISPCN functionality site in each country.
3. Latest at the time of first PAT invitation the Contractor is obliged to present for validation to the Client the following documentation: - a technical solution for network access level;   - a technical solution for network aggregation level;   - a technical solution for the network's core part;   - a technical solution regarding the interconnection between all network levels and the interconnection between core equipment in Slovenia and Croatia;   - instructions GUIDELINES AND/OR INSTRUCTIONS FOR HANDLING AND INSTALLATION of the functioning system as a whole
3. AGGN PAT will test established connection between one or more ISPCN and AGGN locations, which will be part of certain phase of the project.
4. AAN PAT will test established connection between one or more AAN and AGGN locations, which will be part of certain phase of the project.
5. ISPCN PAT will test established connection between two or more ISPCN locations, which will be part of certain phase of the project
6. Each single PAT is not testing redundancy and capacity of the system, but basic functionality and connectivity.

AAN NUMBER:

RUNE
Rural Networks

PAT	EXPECTED RESULT	YES/NO	REMARKS
All equipment must be delivered to the installation location and adequately labelled.	Equipment physically at the location and adequatelly labelled		
Hardware instalation of ONT on its final location	ONT placed on its destination location (in rack if rackmounted)		
Hardware instalaltion of OLT device on its final destination	OLT placed on its destination location (in rack if rackmounted)		
Physical connectivity of ONT device with at least one active link to OLT	ONT device and OLT device are connected to each other and can establish protocol communication		
Physical connectivity of OLT device with at least one active link to AGGN active device via dedicated optical fiber, 10GE service or via DWDM system	OLT device and AGGN active device are connected to each other and can establish protocol communication		
Connecting Power Supply to Active equipment	Power supply is able to provide Power and Active equipment can be powered and Turned ON		
Turn ON OLT device	OLT device is powered ON and turned ON		
Turn ON ONT device	ONT device is powered ON and turned ON		
Provisioning of OLT device	OLT device is configured to support connectivity to ONT device and to AGGN active device, where ONT is reachable from AGGN active device		
Provisioning of ONT device	ONT device is configured with its final configuration to support end user connectivity		
ONT device must be reachable through OLT from AGGN active device	ONT is visible from AGGN active device		
OLT device must be reachable from AGGN device	OLT is visible from AGGN active device		
All active devices on all OLT, AGGN, and ISPCN locations must be visible to each other	All active devices on all OLT, AGGN, and ISPCN locations are visible and reachable to each other via management connectivity locally or via remote access		

Date

Signed by

RUNE (NAME and SURNAME, SIGNATURE)

Technical Supervisor (NAME and SURNAME, SIGNATURE)

Contractor (NAME and SURNAME, SIGNATURE)

AGGN NUMBER:

RUNE
Rural Networks

PAT	EXPECTED RESULT	YES/NO	REMARKS
All equipment must be delivered to the installation location and adequately labelled.	Equipment is physically at the location and adequately labelled.		
Hardware installation of Active Equipment in AGGN location is required to connect to at least one ISPCN and at least one AAN.	Active AGGN equipment is placed on its destination location (in rack if rackmounted).		
Physical connectivity of Active AGGN Equipment to other AGGN active equipment in the same location, to a link toward OLT and to a link toward ISPCN active equipment - at least two active links must be used toward other AGGN device(s) on the same location and at least one link must be used toward dedicated fiber, 10GE service or DWDM system, which connects to OLT devices and to ISPCN active equipment installed	AGGN Active device is connected to other Active AGGN device(s) in its location and has a connection to dedicated optical fiber, 10GE service or DWDM system in order to be connected toward OLT devices installed as well as toward ISPCN active devices - at least one active link is used		
Connecting Power Supply to Active AGGN equipment	Power supply is able to provide Power and Active equipment can be powered and Turned ON		
Turn ON AGGN active device	AGGN active device is powered ON and turned ON		
Provision AGGN Active device for remote and local access	AGGN device is reachable locally or from remote location via SSH secure remote connection		
Provision management on active AGGN device(s) as specified by project documentation to establish connectivity to OLT and ISPCN devices	Active AGGN device(s) is configured with specified management configuration and has reachability to OLT as well as ISPCN active devices installed via dedicated optical fiber, 10GE service or DWDM system		
All active devices on all OLT, AGGN, and ISPCN locations must be reachable to each other over the network	After management configuration all active devices on all AAN, AGGN, and ISPCN locations are visible and reachable to each other locally or via remote access		

Date

Signed by

RUNE   (NAME and SURNAME, SIGNATURE)

Technical Supervisor   (NAME and SURNAME, SIGNATURE)

Contractor   (NAME and SURNAME, SIGNATURE)

RUNE Rural Networks

ISPCN NUMBER:	

PAT	EXPECTED RESULT	YES/NO	REMARKS
All equipment must be delivery to the installation location and adequately labelled.	Equipment physically at the location and adequatelly labelled		
Hardware instalation of Active Equipment in ISPCN location	Active ISPCN equipment placed on its destination location (in rack if rackmounted)		
Physical connectivity of Active ISPCN Equipment to other ISPCN active equipment in the same location, to a link toward AGGN active equipment, and to a link toward other ISPCN active equipment on other ISPCN location - at least one active link must be used toward other ISPCN device(s) on the same location and toward dedicated fiber, 10GE service or DWDM system, which connects to all installed AGGN locations as well as to other installed ISPCN locations	ISPCN Active device is connected to other Active ISPCN device(s) in its location and has a connection to dedicated optical fiber, 10GE service or DWDM system in order to be connected toward all AGGN devices installed in different remote AGGN locations as well as toward ISPCN active devices in other ISPCN locations- at least one active link is used		
Connecting Power Supply to Active ISPCN equipment	Power supply is able to provide Power and Active equipment can be powered		
Physical connectivity of Active ISPCN Equipment to a active device toward ISP (if such device exists)	ISPCN Active device is connected with at least one link to ISPCN Active device, which is used to connect to ISPs (if such device exists)		
Turn ON ISPCN active device(s)	ISPCN active device(s) is powered ON and turned ON		
Provision ISPCN Active device(s) for remote and local access	ISPCN device(s) is/are reachable locally or from remote location via SSH secure remote connection		
Provision management VLAN or MGMT interface (whatever applies based on HLD and LLD document) on Active ISPCN device and establish connectivity to AGGN devices on all installed AGGN locations and other ISPCN device(s) in the same location as well as in remote ISPCN locations	ISPCN device(s) is/are configured with MGMT VLAN or MGMT interface with IP address and have reachability to all installed OLT devices, all installled AGGN devices as well as all ISPCN active devices installed in the same or remote ISPCN location, where external connectivity is provided via dedicated optical fiber, 10GE service or DWDM system		
All active devices on all OLT, AGGN, and ISPCN locations must be visible to each other	All active devices on all OLT, AGGN, and ISPCN locations are visible and reachable to each other via management connectivity locally or via remote access		

Date

Signed by
RUNE (NAME and SURNAME, SIGNATURE)

Technical Supervisor (NAME and SURNAME, SIGNATURE)

Contractor (NAME and SURNAME, SIGNATURE)

DWDM (side A - side B)			

PAT	EXPECTED RESULT	YES/NO	REMARKS
All equipment must be delivered to the installation location and adequately labelled.	Equipment physically at the location and adequately labelled		
Hardware installation of DWDM Equipment in AGN and ISPCN locations	DWDM equipment placed on its destination locations (in rack if rackmounted)		
Physical connectivity of DWDM Equipment to AGGN and/or ISPCN active equipment in the location as well as to an optical link toward remote AGGN and/or ISPCN location - at least one link must be connected, where ISPCN locations have at least one link toward each AGGN node in region installed (Slovenian AGGN to Slovenian ISPCN, Croatian AGGN to Croatian ISPCN, Slovenian ISPCN to Coatian ISPCN)	Each Connection between remote AGGN and ISPCN as well as ISPCN to ISPCN connections is connected in order to support expected connectivity and data transport between reomote locations		
Connecting Power Supply to DWDM equipment	Power supply is able to provide Power and Active equipment can be powered		
Turn ON DWDM active device(s)	DWDM active device(s) is powered ON and turned ON		
Provision DWDM Active device(s) for remote and local access	DWDM device(s) is/are reachable locally or from remote location via SSH secure remote connection or any other management connectivity		
Provision DWDM equipment with at least one active link and wavelength toward remote location to provide working connectivity toward remote site(s)	All active devices locally and on neighboring location(s) are reachable via management to each other after DWDM link is active and configured. It is possible to connect from one location locally to connected remote location via this configured and active DWDM link		

Date

Signed by
RUNE (NAME and SURNAME, SIGNATURE)

Technical Supervisor (NAME and SURNAME, SIGNATURE)

Contractor (NAME and SURNAME, SIGNATURE)