|  |
| --- |
| IOH Spesific MOP  «titlemop» |
| 附件1-16K |
| |  |  |  |  | | --- | --- | --- | --- | | **Prepared by:** | **Aktortifan Ridno Prabu Pratama** | **Date:** | **«predate»** | | **Reviewer:** | **Aris**  **(AWX544314)** | **Date:** | **«predate»** | | **Approver:** | **Goh Kok King**  **(G00493149)** | **Date:** | **«predate»4** | |

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# Description of Change

## Description of Site

**Network Topology:**

|  |  |
| --- | --- |
| **NCE Network topology diagram** |  |
| **Key features and business** | The key features involved in this change Vlan modification |

**Remote access information: customer agree remote access. The authorization will provided at operation date.**  **Remote Access via VPN**



## Purpose and Requirements

**Change Purpose**: Change existing vlan from range 1-4093 to actual active vlan

**Change scope:** Change **«linknum»** Links in JABODETABEK area

**Change time:** **«date»** to **«date»,** **«time»** (All day from 00:00 – 23:59, follow customer approval CR)

## Description of Change and Change Influence

- To resolve the broadcast vlan on existing H3i Network..

**NE version update information**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| NO. | NE ID | NE TYPE | QTY | Current Version | Target Version |
| 1 | 101876 | RTN950A | 1 | V100R019C10SPC210 | V100R019C10SPC210 |

**Service influence**

|  |  |  |  |
| --- | --- | --- | --- |
| **DUID** | **Qty** | **Dependency List** | **Data Source** |
| «duid» | «qty» | «list» | «source» |

# Preparations for Change

## Composition of Change Team and Responsibility of Team Members

### Change Team of Huawei Company（Customer）

|  |  |  |
| --- | --- | --- |
| Name | Responsibility | Telephone No. |
| Rian Ikbal | H3I Planning | 089618888805 |
| Argidinata | H3I Operation | 08992393335 |
| Bayu Rendro | H3I TBM JABO3 | 08999333364 |

### Huawei On-site Change Team

|  |  |  |
| --- | --- | --- |
| **Name** | **Responsibility** | **Telephone No.** |
| Goh Kok King (g00493149) | Owner for change | +62 897-3607-326 |
| Ajia Leonardo (a00598938) | Team Member | +62 813-6217-4917 |
| Samuel Teguh (WX281796) | Team Member | +62 895-3035-7149 |
| Imar Prasetiono (i00262076) | Team Member | +62 896-3002-1008 |
| Arwan Rianto WX912663 | Team Member | +6281212670311 |
| Miki Priyanto WX684662 | Team Member | +6282177587757 |
| Saeful Fadli WX813785 | Team Member | +6289635328746 |
| Pahruroji WX903309 | Team Member | +6287773101536 |
| Dedi Kusuma WX684663 | Team Member | +6281286527001 |
| Novel Akbar WX819421 | Team Member | +6289637356535 |
| Amran Rosadi WX826183 | Team Member | +628983906128 |
| Abdul Rosyid WX684665 | Team Member | +6281216960391 |
| Nizar Muchtar WX684664 | Team Member | +62817818414 |
| Berto Pasaribu WX922005 | Team Member | +6282150274902 |
| Suherman WX999953 | Team Member | +6281214451181 |
| Sigit Wibowo WX903307 | Team Member | +62817293888 |

### Huawei Remote support Team (Optional)

|  |  |  |
| --- | --- | --- |
| Name | Responsibility | Telephone No. |
| Zhangling z00380621 | Escalation from microwave side | 081219748518 |
| Cheiw Cheong Loon c00742069 | Team member | +6281314862000 |

## Remote Access + Platform & Software Access

| **Type** | **Preparation status** | **Owner** |
| --- | --- | --- |
| **NCE-T\*** | Prepare 2 remote access solutions to customer network  Main solution 1: VPN using Fixed Broadband  Backup solution 2: VPN using Mobile Broadband | Aris/AWX544314  Samuel/WX281796  Sigit Wibowo WX903307  Arwan Rianto WX912663  Miki Priyanto WX684662  Saeful Fadli WX813785  Pahruroji WX903309  Dedi Kusuma WX684663  Novel Akbar WX819421  Amran Rosadi WX826183  Abdul Rosyid WX684665  Nizar Muchtar WX684664  Berto Mando Pasaribu WX922005  Suherman WX999953 |
| **Communication backup\***  *（essential for high risk change* | Back up your phone and SIM cards of other carriers.(+6281373842958) | Aris/AWX544314  Samuel/WX281796  Sigit Wibowo WX903307  Arwan Rianto WX912663  Miki Priyanto WX684662  Saeful Fadli WX813785  Pahruroji WX903309  Dedi Kusuma WX684663  Novel Akbar WX819421  Amran Rosadi WX826183  Abdul Rosyid WX684665  Nizar Muchtar WX684664  Berto Mando Pasaribu WX922005  Suherman WX999953 |
| Version software | Optix RTN980- V100R11C01SPC200.  Optix RTN950 V100R011C00SPC500  Optix RTN950A V100R019C10SPC210 | Aris/AWX544314  Samuel/WX281796  Sigit Wibowo WX903307  Arwan Rianto WX912663  Miki Priyanto WX684662  Saeful Fadli WX813785  Pahruroji WX903309  Dedi Kusuma WX684663  Novel Akbar WX819421  Amran Rosadi WX826183  Abdul Rosyid WX684665  Nizar Muchtar WX684664  Berto Mando Pasaribu WX922005  Suherman WX999953 |
| Test tools | NCE | Aris/AWX544314  Samuel/WX281796  Sigit Wibowo WX903307  Arwan Rianto WX912663  Miki Priyanto WX684662  Saeful Fadli WX813785  Pahruroji WX903309  Dedi Kusuma WX684663  Novel Akbar WX819421  Amran Rosadi WX826183  Abdul Rosyid WX684665  Nizar Muchtar WX684664  Berto Mando Pasaribu WX922005  Suherman WX999953 |

## Check of Equipment Running

| No. | Check Item | Check result or steps |
| --- | --- | --- |
| 1 | Alarm on RTN | Query and monitor by using NCE server MML Command “browse current alarm”. Check result : **No alarm** impact service |
| 2 | KPI Performance Link and BTS Status | Query performance link analysis and coordination with regional Network Performance Management team. |
| 3 | hardware operation status | Query and monitor by using NCE server. Check result : **Board No alarm** |
| 4 | Radio Link Performance (ES, SES & UAS) | Query performance link analysis and coordination with regional Network Performance Management team. Check result : No Issue |

## Change Risks and Countermeasures

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Main Issues and Risks Description** | **Possibility** | **Impact** | **Countermeasure** |
| 1 | Service Interruption | Low | Middle | if the service interrupted more than 1 hour , we have on-site support |
| 2 | Data Lost | Low | Middle | Data already backed-up in server NCE |
| 3 | NE out of management | Low | Middle | We have on-site support |

## Check before Change

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Preparations Before Change** | **Owner** | **Completion Date** |
| 1 | Readiness of Operation team(including no limit: customer/change team/relate vendor team/monitoring team/verification team) | Aris/AWX544314/08990098546  Deden/00738162 | 1 day before activity |
| 2 | Readiness of Implementation Solution (Including no limit: activity solution/verify solution/rollback solution) | Aris/AWX544314/08990098546  Deden/00738162 | 1 day before activity |
| 3 | Readiness of Solution verify in test bed(For High Risk Implementation solution) | Aris/AWX544314/08990098546  Deden/00738162 | 1 day before activity |
| 4 | Readiness of Solution Review | Aris/AWX544314/08990098546  Deden/00738162 | 1 day before activity |
| 5 | Readiness of remote log-in environment | Aris/AWX544314/08990098546  Deden/00738162 | 1 day before activity |
| 6 | Readiness of Site Enter Permit(If relate) | Aris/AWX544314/08990098546  Deden/00738162 | 1 day before activity |
| 7 | Explain MOP to customer | Aris/AWX544314/08990098546  Deden/00738162 | NA |
| 8 | Get 3 approval of RFC | Aris/AWX544314/08990098546  Deden/00738162 | 1 day before activity |
| 9 | Confirm test solution with customer | Aris/AWX544314/08990098546  Deden/00738162 | 1 day before activity |
| 10 | Send email notification of operation to customer | Aris/AWX544314/08990098546  Deden/00738162 | 3 hours before Activity |
| 11 | Get operation user account permission from customer | Aris/AWX544314/08990098546  Deden/00738162 | 1 day before Activity |

If no, input **NA** here \

# Operation Steps for Change

## Overall Description of Change Steps

|  |  |  |
| --- | --- | --- |
| **No.** | **Main steps** | **Operation time** |
| 1 | Preparation | 23:00 – 00:00 (subject to CR) |
| 2 | Operation | 00:00 – 01:00 (subject to CR) |
| 3 | Verification | 01:00 – 02:00 (subject to CR) |
| 4 | Rollback | 02:00 – 03:00 (subject to CR) |
| 5 | Complete | 04:00 (subject to CR) |

## Operation Steps for Change

1. RO check the alarm before the execution
2. Coordinates with NOC & TOC before starting to execute
3. Backup NCE database

Implementation Step

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Change Step** | **Operation** | **Implementation Person** | **Time** |
| 1. | *NE data backup* | *Confirm the data backup has been done successfully* | Aris/AWX544314  Deden/00738162  Samuel/WX281796  Sigit Wibowo WX903307  Arwan Rianto WX912663  Miki Priyanto WX684662  Saeful Fadli WX813785  Pahruroji WX903309  Dedi Kusuma WX684663  Novel Akbar WX819421  Amran Rosadi WX826183  Abdul Rosyid WX684665  Nizar Muchtar WX684664  Berto Mando Pasaribu WX922005  Suherman WX999953 | 22:00-22:15 (subject to CR) |
| 2. | *Alarms & Check link status* | *Confirm the NE alarms has no abnormal alarm & Check link status and RMON before operation* | Aris/AWX544314  Deden/00738162  Samuel/WX281796  Sigit Wibowo WX903307  Arwan Rianto WX912663  Miki Priyanto WX684662  Saeful Fadli WX813785  Pahruroji WX903309  Dedi Kusuma WX684663  Novel Akbar WX819421  Amran Rosadi WX826183  Abdul Rosyid WX684665  Nizar Muchtar WX684664  Berto Mando Pasaribu WX922005  Suherman WX999953 | 22:15-22:30 (subject to CR) |
| 4 | *Vlan modification* | 1. *Log in remote via nce server at NE and FE side.* 2. *Go to elan service and check active mac address and record current active vlan.* 3. *Change existing vlan from 1-4093 to active vlan base on mac address NE FE* | Aris/AWX544314  Deden/00738162  Samuel/WX281796  Sigit Wibowo WX903307  Arwan Rianto WX912663  Miki Priyanto WX684662  Saeful Fadli WX813785  Pahruroji WX903309  Dedi Kusuma WX684663  Novel Akbar WX819421  Amran Rosadi WX826183  Abdul Rosyid WX684665  Nizar Muchtar WX684664  Berto Mando Pasaribu WX922005  Suherman WX999953 | 00:00-01:00 (subject to CR) |

## Test and Verification

Describe in details how the test is conducted, specify the owner of each test item and test items, record detailed test processes .

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test Item** | **Operation Method** | **Owner** | **Time** |
| 1 | Check link status | Check whether the service is OK. | Aris/AWX544314  Deden/00738162  Samuel/WX281796  Sigit Wibowo WX903307  Arwan Rianto WX912663  Miki Priyanto WX684662  Saeful Fadli WX813785  Pahruroji WX903309  Dedi Kusuma WX684663  Novel Akbar WX819421  Amran Rosadi WX826183  Abdul Rosyid WX684665  Nizar Muchtar WX684664  Berto Mando Pasaribu WX922005  Suherman WX999953 | 01:00-01:15 (subject to CR) |
| 2 | Check the running status of NE | Check the running status of the equipment and whether new alarms are generated. | Aris/AWX544314  Deden/00738162  Samuel/WX281796  Sigit Wibowo WX903307  Arwan Rianto WX912663  Miki Priyanto WX684662  Saeful Fadli WX813785  Pahruroji WX903309  Dedi Kusuma WX684663  Novel Akbar WX819421  Amran Rosadi WX826183  Abdul Rosyid WX684665  Nizar Muchtar WX684664  Berto Mando Pasaribu WX922005  Suherman WX999953 | 01:15-01:30 (subject to CR) |
| 3 | Data compare | Collect key performance data of the entire network and compare it with the data collected before the upgrade | Aris/AWX544314  Deden/00738162  Samuel/WX281796  Sigit Wibowo WX903307  Arwan Rianto WX912663  Miki Priyanto WX684662  Saeful Fadli WX813785  Pahruroji WX903309  Dedi Kusuma WX684663  Novel Akbar WX819421  Amran Rosadi WX826183  Abdul Rosyid WX684665  Nizar Muchtar WX684664  Berto Mando Pasaribu WX922005  Suherman WX999953 | 01:30-01:35 (subject to CR) |
| 4 | Confirm the service again. | Check the service | Aris/AWX544314  Deden/00738162  Samuel/WX281796  Sigit Wibowo WX903307  Arwan Rianto WX912663  Miki Priyanto WX684662  Saeful Fadli WX813785  Pahruroji WX903309  Dedi Kusuma WX684663  Novel Akbar WX819421  Amran Rosadi WX826183  Abdul Rosyid WX684665  Nizar Muchtar WX684664  Berto Mando Pasaribu WX922005  Suherman WX999953 | 01:35-02:00 (subject to CR) |

## Solution for Changeback In the Case of Failure

### Definition of Change Failure

| **Change back time** | 02:00-03:00 (subject to CR) |
| --- | --- |
| **Change back decision maker** | Huawei: **TD Zhangling 00380621**  Customer: **Bayu Rendro**  Customer: **Ernest**  Customer: **Widi** |
| Rollback condition | 1. Link down.  2. Service not normal.  3. Link cannot monitor on NCE. |

### Changeback Steps

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No**. | **Change back Steps** | **Operation content** | **Owner** | **Time** |
| 1 | Rollback Vlan | Rollback Vlan NE FE become 1-4093 | Aris/AWX544314  Deden/00738162  Samuel/WX281796  Sigit Wibowo WX903307  Arwan Rianto WX912663  Miki Priyanto WX684662  Saeful Fadli WX813785  Pahruroji WX903309  Dedi Kusuma WX684663  Novel Akbar WX819421  Amran Rosadi WX826183  Abdul Rosyid WX684665  Nizar Muchtar WX684664  Berto Mando Pasaribu WX922005  Suherman WX999953  Team on site support | 02:00 - 02:30 (subject to CR) |

### Change back flow (optional)

NA

### Equipment Status Check (optional)

NA

### Tests after Changeback

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Test Item** | **Operation Method** | **Owner** | **Time** |
| 1 | Service test | Check the NE's service :   * Microwave Link Interface, check the traffic * E-LAN service -> advance attribute, check the service, and check the self-learn mac address | Aris/AWX544314  Deden/00738162  Samuel/WX281796  Sigit Wibowo WX903307  Arwan Rianto WX912663  Miki Priyanto WX684662  Saeful Fadli WX813785  Pahruroji WX903309  Dedi Kusuma WX684663  Novel Akbar WX819421  Amran Rosadi WX826183  Abdul Rosyid WX684665  Nizar Muchtar WX684664  Berto Mando Pasaribu WX922005  Suherman WX999953 | 02:30-02:45 (subject to CR) |
| 2 | Alarm | Check the NE clear from alarms or same as before execution | Aris/AWX544314  Deden/00738162  Samuel/WX281796  Sigit Wibowo WX903307  Arwan Rianto WX912663  Miki Priyanto WX684662  Saeful Fadli WX813785  Pahruroji WX903309  Dedi Kusuma WX684663  Novel Akbar WX819421  Amran Rosadi WX826183  Abdul Rosyid WX684665  Nizar Muchtar WX684664  Berto Mando Pasaribu WX922005  Suherman WX999953 | 02:45-03:00 (subject to CR) |

### Changeback Risk Analysis

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Main Issues and Risks Description\*** | **Possibility** | **Impact** | **Countermeasure** |
| 1 | Rollback Failed | Low | Middle | If cannot solve problem, contact with GTAC hotline |
| 2 | After rollback, the NE still loss management | Low | Middle | Create a new DCN link for this NE.  Go to site to recover the DCN port |
| 3 | NE OM down | Low | Middle | There is on-site support |

## Change of Spare Parts and Emergency Workstation (optional)

N/A

# Work after Change

## Observation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | Observation Item | Observation method | Owner | Observation Time |
| 1. | Alarm | Check current alarm status, make sure alarm clear (or same condition with before)` | Ajia Leonardo (a00598938),  Imar Prasetiono (i00262076),  Aris  (AWX544314)  Deden  00738162  Samuel/WX281796 | 04:00 – 23:00 (subject to CR) |
| 2. | Query MW Port Capacity Utilization Report | Check the port capacity has been clear from congestion or not | Ajia Leonardo (a00598938),  Imar Prasetiono (i00262076),  Aris  (AWX544314)  Deden  00738162  Samuel/WX281796 | 04:00 – 23:00 (subject to CR) |
| 3 | Radio/WL Performance | Check the radio/WL performance, send out the report and then coordination to Regional NPM team to monitor and share the performance result from their side | NPM team | 04:00 – 23:00 (subject to CR) |

## Provision of Materials (optional)

NA

## Provision of Software (optional)

NA

## Training (Optional)

NA

## Matters Needing Attention (Optional)

NA