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Approved	Checked	Date	Rev	Reference
		08-02-2020	Ver1.0	

MOP of Auto-Negotiation Mismatch Alarm at Nokia Site

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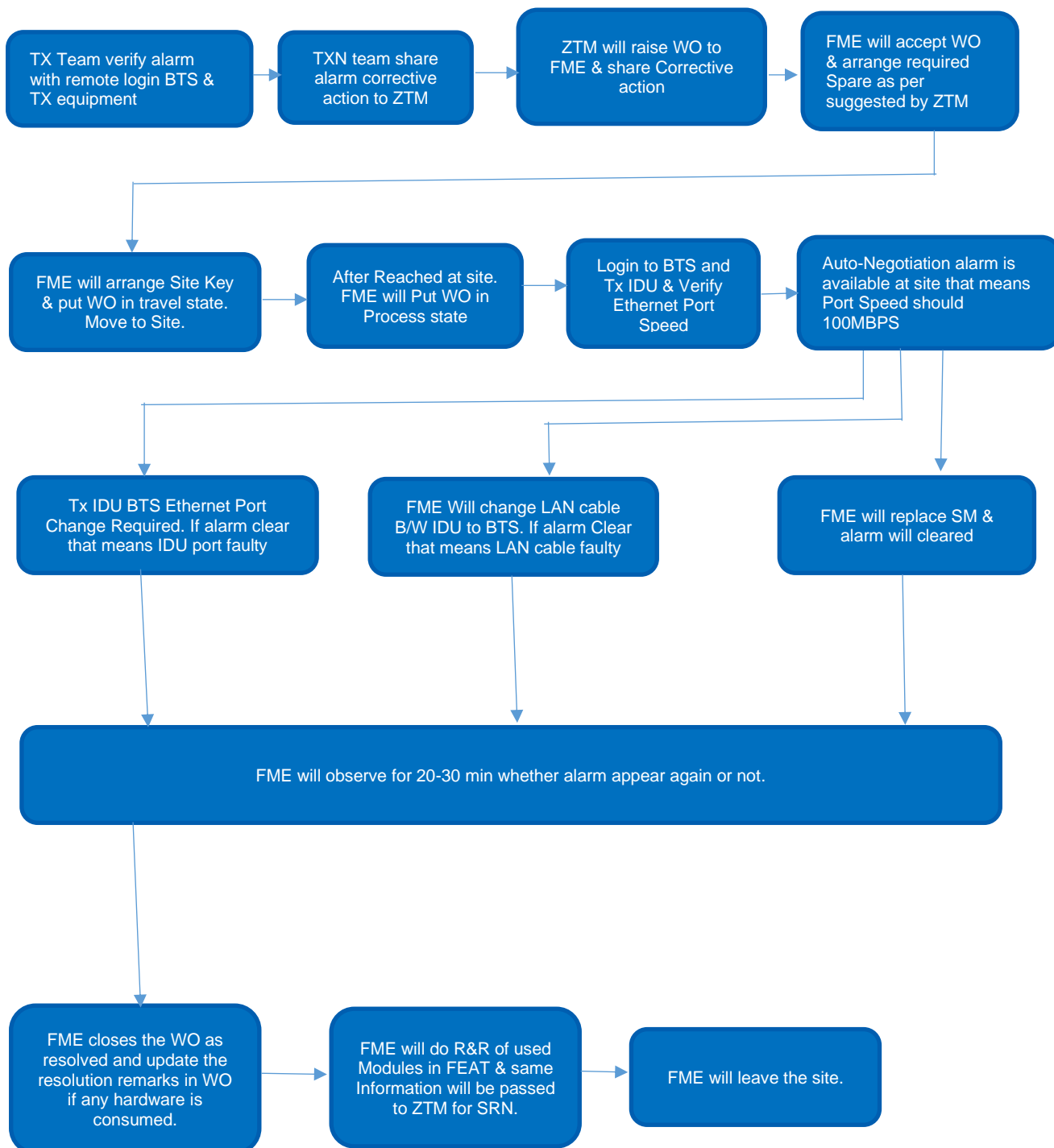| Prepared (also subject responsible if other)		No.			
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Activity Description

This activity is for E2E troubleshooting and alarm clearance of Auto-negotiation mismatch on Ethernet Interface.

Attached is the details to be followed. As this need to be followed as guideline.

Alarm Name	1. Auto-negotiation mismatch on Ethernet Interface
Alarm Description	1. Auto-negotiation mismatch on Ethernet Interface 2. BTS Ethernet Transport Port Speed degraded from 1000 MBPS to 100 MBPS
Possible Causes	1. IDU or BTS Hang 2. IDU Ethernet Port faulty 3. LAN cable faulty 4. SM Ethernet Port Faulty

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Flow Chart

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┌──────────────────────┐   ┌──────────────────────┐   ┌──────────────────────┐   ┌──────────────────────┐
│ TX Team verify alarm │   │ TXN team share       │   │ ZTM will raise WO to │   │ FME will accept WO   │
│ with remote login BTS│──▶│ alarm corrective     │──▶│ FME & share Corrective│──▶│ & arrange required   │
│ & TX equipment       │   │ action to ZTM        │   │ action               │   │ Spare as per         │
│                      │   │                      │   │                      │   │ suggested by ZTM     │
└──────────────────────┘   └──────────────────────┘   └──────────────────────┘   └──────────────────────┘
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┌──────────────────────┐   ┌──────────────────────┐   ┌──────────────────────┐   ┌──────────────────────┐
│ FME will arrange Site│   │ After Reached at site.│   │ Login to BTS and     │   │ Auto-Negotiation     │
│ Key & put WO in      │──▶│ FME will Put WO in   │──▶│ Tx IDU & Verify      │──▶│ alarm is available   │
│ travel state. Move to│   │ Process state        │   │ Ethernet Port Speed  │   │ at site that means   │
│ Site.                │   │                      │   │                      │   │ Port Speed should    │
│                      │   │                      │   │                      │   │ 100MBPS              │
└──────────────────────┘   └──────────────────────┘   └──────────────────────┘   └──────────────────────┘
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┌──────────────────────┐   ┌──────────────────────┐   ┌──────────────────────┐
│ Tx IDU BTS Ethernet  │   │ FME Will change LAN  │   │ FME will replace SM &│
│ Port Change Required.│   │ cable B/W IDU to BTS.│   │ alarm will cleared   │
│ If alarm clear that  │   │ If alarm Clear that  │   │                      │
│ means IDU port faulty│   │ means LAN cable faulty│  │                      │
└──────────────────────┘   └──────────────────────┘   └──────────────────────┘
```

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┌───────────────────────────────────────────────────────────────────────────────┐
│       FME will observe for 20-30 min whether alarm appear again or not.         │
└───────────────────────────────────────────────────────────────────────────────┘
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┌──────────────────────┐   ┌──────────────────────┐   ┌──────────────────────┐
│ FME closes the WO as │   │ FME will do R&R of   │   │ FME will leave the   │
│ resolved and update  │──▶│ used Modules in FEAT │──▶│ site.                │
│ the resolution remarks│  │ & same Information   │   │                      │
│ in WO if any hardware│   │ will be passed to    │   │                      │
│ is consumed.         │   │ ZTM for SRN.         │   │                      │
└──────────────────────┘   └──────────────────────┘   └──────────────────────┘
```

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Activity Details

Auto-negotiation mismatch Information & Checking for corrective action

1. TXN team verify alarm/check softly & share information to ZTM with corrective action
2. ZTM will raise request for Planned WO creation
3. FME will receive Planned work order in WFM of Auto-Negotiation Mismatch alarm
4. FME accept WO as received.
5. If possible FME visit site on same day otherwise will plan on next day.
6. ZTM will suggest to take required Spare Material

Site Movement & Spare Arrangement

1. FME arrange key of site from respective Infra partner.
2. FME take required materials to resolve the alarm (As per TXN Team given action plan)
3. Now FME move to site and put WO in Travel state

Alarm issue Identification & Rectification

1. When FME reached at site, he put WO in progress state.

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2. Then FME will Login Tx IDU & verify BTS Ethernet Port Speed. If port speed is 100 MBPS on both end. Then take below action
   a. Tx IDU BTS Ethernet Port Change Required. If alarm clear that means IDU port faulty & If not Clear Then follow next step
   b. FME Will change LAN cable B/W IDU to BTS. If alarm Clear that means LAN cable faulty & If not Clear then follow next step
   c. FME will replace SM & alarm will get cleared.

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3. FME will observe for 20-30 min whether alarm appear again or not.
4. If alarm don't appear again it means alarm resolved, then FME inform to ZTM or Senior engineer about the same
5. FME closes the WO as resolved and update the resolution remarks in WO if any hardware or consumable material used.
6. FME will do R&R of used Modules in FEAT & same Information will pass to ZTM for SRN.
7. FME leave the site.