

Huawei Managed Services Unified Platform (MS UP) v1.0

Representation of Solution Functionality/Capability

“Utilizing eTOM, ITIL and TL 9000, Huawei Managed Services has integrated these three global standards and developed its own compliant managed services unified platform. This Unified Platform illustrates and details the required components and processes to effectively and consistently manage a telecommunications business.

The MS UP has been developed on a best practice driven architecture:

Our organization has been trained and developed on global certification program standards and has developed strong capabilities in multiple and flexible environments.

Our process has been developed using the latest and newest methodologies from eTOM and ITIL, and merged to provide an off the shelf, flexible and re-usable solution into many different environments including IT.

Our OSS is developed on process driven and workflow alignment which provides greater flexibility to adapt to different technology environments.

Overall the MS UP provides a standardized platform for future proof technology”.

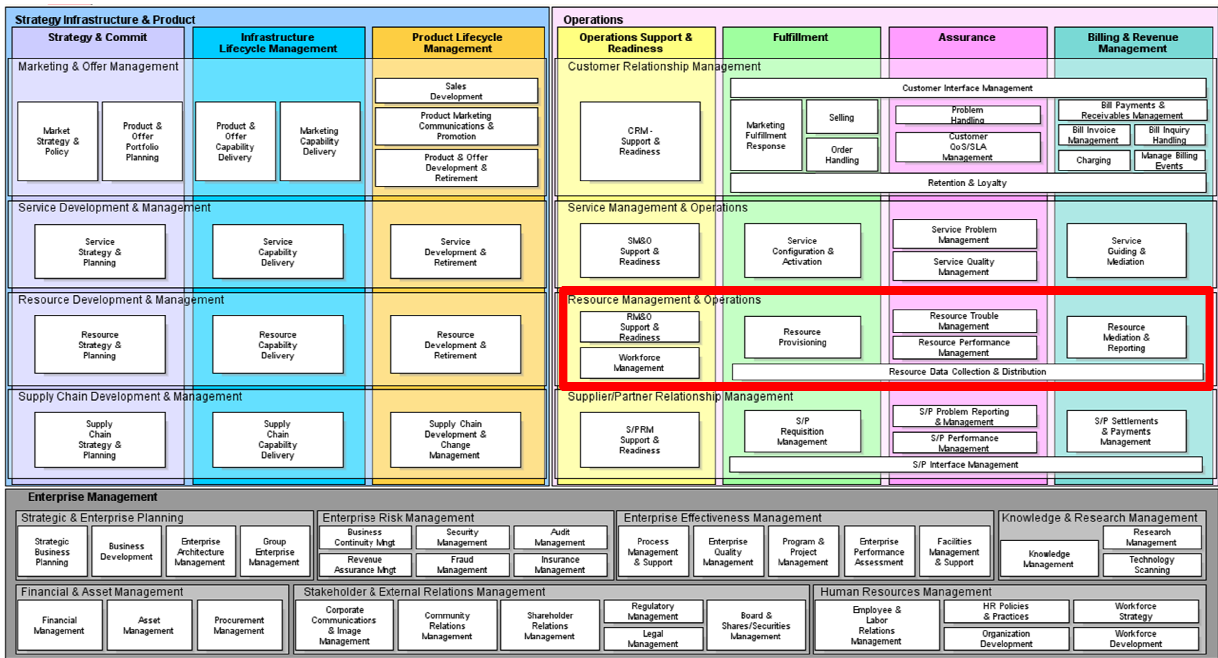
Mapping Technique Employed

Each eTOM process is supported by one or more business scenarios. In many cases there are quite a few business scenarios that support a process. In these cases, one or more selected business scenarios examples are used rather than mapping the entire set of business scenarios to the process. eTOM L3 descriptions are analyzed by looking for implied tasks (similar to Semantic Analysis). Each User Story step is analyzed to find the step or steps that support the implied tasks. Implied tasks are highlighted in green with Word citation(s) following the highlighted text to show support for an implied task. These Citations will be included in a Words Cited table, which follows the mapping tables. For the cases where process description text cannot be mapped to a step or steps, the sentences are highlighted in yellow and the reasons are explained.

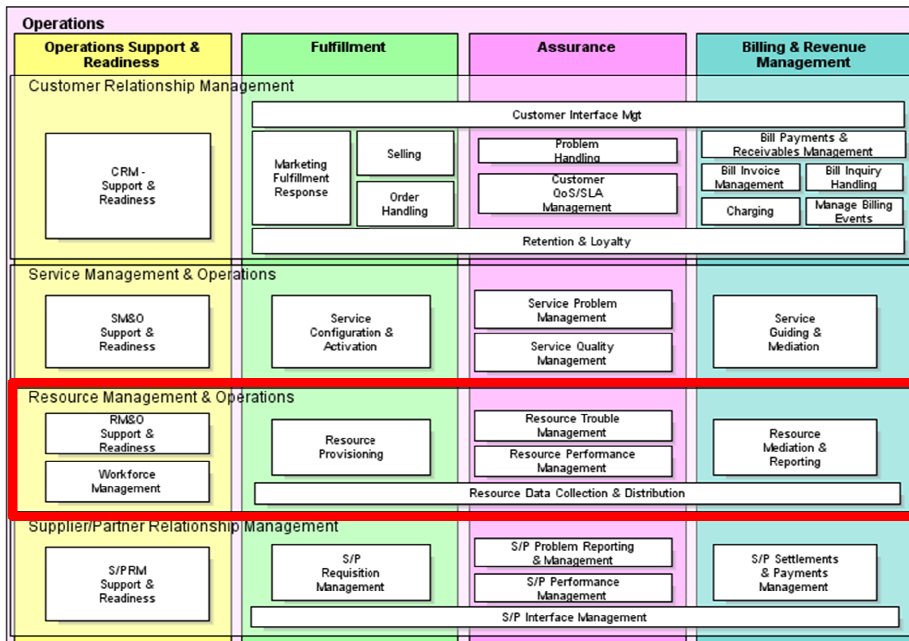
eTOM Footprint

(see next page)

eTOM Level 1 view



eTOM Level 2 view (Operations Area)



1.1.3.1 RM&O Support & Readiness Management

eTOM Process Element	Huawei Mapping	
1.1.3.1 RM&O Support & Readiness Management	Alignment	Mapping Content
1.1.3.1.1 Enable Resource Provisioning	Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc	<p>Brief Description</p> <p>Planning and deployment of new and/or modified resource infrastructure to ensure availability of sufficient resource infrastructure to support the Resource Provisioning processes, and monitoring, managing and reporting on the capability of the Resource Provisioning processes. (Segment 1.1.3.1.1, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)</p> <p>Extended Description</p> <p>The responsibilities of the Enable Resource Provisioning processes are twofold - planning and deployment of new and/or modified resource infrastructure to ensure availability of sufficient resource infrastructure to support the Resource Provisioning processes, and monitoring, managing and reporting on the capability of the Resource Provisioning processes.</p> <p>(Segment 1.1.3.1.1, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)</p> <p>The responsibilities of these processes include, but are not limited to:</p> <ul style="list-style-type: none"> · Forecasting at an operational level resource infrastructure volume requirements and run-out timeframes; · Managing capacity planning associated with the deployment of new and/or modified resource infrastructure; · Establishing and monitoring of organizational arrangements to support deployment and operation

		<p>of new and/or modified resource infrastructure;</p> <ul style="list-style-type: none"> · Creating, deploying, modifying and/or upgrading of resource infrastructure deployment support tools (including Resource Inventory) and processes for new and/or modified resource infrastructure; · Developing and promulgating resource infrastructure capacity deployment rules and controls; · Authoring, reviewing and approving operational procedures developed by Resource Development & Management processes prior to resource infrastructure deployment; <p>(Activity “1.1.3.1.1.2 Review services demand report“ to “1.1.3.1.1.22 Report facilities passed replenishment threshold”, This review services demand and review network equipment utilization process will support all the matters above about resource infrastructure; Segment 1.1.3.1.1, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)</p> <ul style="list-style-type: none"> · Testing and acceptance of new and/or modified resource infrastructure as part of the handover procedure from the Resource Development & Management processes to Operations; · Detecting resource infrastructure operational limitations and/or deployment incompatibilities and providing requirements to address these aspects to Resource Development & Management processes; · Scheduling, managing, tracking and monitoring of the roll-out, in accordance with approved plans, of the approved new and/or modified resource infrastructure; · Monitoring capacity utilization of deployed resource infrastructure to provide early detection of potential resource infrastructure shortfalls; (Note 1) · Monitoring of, and reporting on, resource infrastructure and resource instance currency and version management; · Reconfiguring and re-arranging under-utilized deployed resource infrastructure <p>(Activity “1.1.3.1.1.21 Send network grooming request”, Segment 1.1.3.1.1, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)</p> <ul style="list-style-type: none"> · Managing recovery and/or removal of obsolete or unviable resource infrastructure;
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		<ul style="list-style-type: none"> · Reporting on deployed resource infrastructure capacity; (Activity “1.1.3.1.1.2 Review services demand report“ to “1.1.3.1.1.22 Report facilities passed replenishment threshold”, This review services demand and review network equipment utilization process will support all the matters above about resource infrastructure; Segment 1.1.3.1.1, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc) · Tracking and monitoring of the Resource Provisioning Management processes and associated costs (including where resource infrastructure is deployed and managed by third parties), and reporting on the capability of the Resource Provisioning Management processes; · Establishing and managing resource provisioning notification facilities and lists to support the Resource Provisioning notification and reporting processes; and (Activity “1.1.3.1.1.23 Review Resource Provisioning Operational Reports“ to “1.1.3.1.1.36 Continue to monitor”, This Resource Provisioning Process improvement process will support all the matters above about Resource Provisioning Management processes; Segment 1.1.3.1.1, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc) · Updating the Resource Inventory of any changes to the available resource infrastructure capacity. (Activity “1.1.3.1.1.2 Review services demand report“ to “1.1.3.1.1.22 Report facilities passed replenishment threshold”, This review services demand and review network equipment utilization process will support all the matters above about resource infrastructure; Segment 1.1.3.1.1, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)
1.1.3.1.2 Enable Resource Performance Management	Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc	<p>Brief Description</p> <p>Proactively monitoring and maintaining resource infrastructure, and monitoring, managing and reporting on the capability of the Resource Performance Management processes. (Segment 1.1.3.1.2, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness</p>

Management - V.1.0.doc)

Extended Description

The responsibilities of the Enable Resource Performance Management processes are twofold - support Resource Performance Management processes by proactively monitoring and assessing resource infrastructure performance, and monitoring, managing and reporting on the capability of the Resource Performance Management processes.

(Segment 1.1.3.1.2, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)

Proactive management is undertaken using a range of performance parameters, whether technical, time, economic or process related.

(Activity “1.1.3.1.2.25 Review Resource Performance Management Operational Reports “ to “1.1.3.1.2.38 Continue to monitor”, This Resource Performance Management Process improvement will support all the matters above about Resource Performance Management processes; Segment 1.1.3.1.2, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)

The responsibilities of the processes include, but are not limited to:

- Undertaking proactive monitoring regimes of resource infrastructure as required to ensure ongoing performance within agreed parameters over time;

- Developing and maintaining a repository of acceptable performance threshold standards for resource instances to support the Resource Performance Management processes;

- Undertaking trend analysis, and producing reports, of the performance of resource infrastructure to identify any longer term deterioration;

- Monitoring and analyzing the resource instance analyses produced by the Resource Performance Management processes to identify problems that may be applicable to the resource infrastructure as a whole;

- Sourcing details relating to resource instance

		<p>performance and analysis from the resource inventory to assist in the development of trend analyses;</p> <ul style="list-style-type: none"> · Logging the results of the analysis into the resource inventory repository; · Establishing and managing resource performance data collection schedules, including managing the collection of the necessary information from the Resource Data Collection & Distribution processes, to support proactive monitoring and analysis activity, and requests from Resource Performance <p>Management processes for additional data to support resource instance performance analysis;</p> <ul style="list-style-type: none"> · Establishing and managing facilities to support management of planned resource infrastructure and resource instance outages; · Establishing, maintaining and managing the testing of resource performance control plans to cater for anticipated resource performance disruptions; · Proactively triggering the instantiation of control plans to manage performance through programmed and/or foreseen potentially disruptive events, i.e. anticipated traffic loads on Xmas day, planned outages, etc.; · Tracking and monitoring of the Resource Performance Management processes and associated costs (including where resource infrastructure is deployed and managed by third parties), and reporting on the capability of the Resource Performance Management processes; · Establishing and managing resource performance notification facilities and lists to support the Resource Performance Management notification and reporting processes; and <p>(Activity “1.1.3.1.2.25 Review Resource Performance Management Operational Reports “ to “1.1.3.1.2.38 Continue to monitor”, This Resource Performance Management Process improvement will support all the matters above about Resource Performance Management processes; Segment 1.1.3.1.2, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)</p> <ul style="list-style-type: none"> · Supporting the Support Service Quality Management process. (Note 2)
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<p>1.1.3.1.3 Support Resource Trouble Management</p>	<p>Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc</p>	<p>Brief Description</p> <p>Proactively undertaking statistically driven preventative and scheduled resource infrastructure maintenance activities, and repair activities, and monitoring, managing and reporting on the capability of the Resource Trouble Management processes.</p> <p>(Segment 1.1.3.1.3, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)</p> <p>Extended Description</p> <p>The responsibilities of the Support Resource Trouble Management processes are twofold - support Resource Trouble Management processes by proactively undertaking statistically driven preventative and scheduled resource infrastructure maintenance activities, and repair activities, and monitoring, managing and reporting on the capability of the Resource Trouble Management processes.</p> <p>These processes are responsible for ensuring that the resource infrastructure is working effectively and efficiently.</p> <p>Responsibilities of these processes include, but are not limited to:</p> <ul style="list-style-type: none"> · Extracting and analyzing, including undertaking trend analysis, historical and current resource instance trouble reports and performance reports to identify potential resource infrastructure or resource instances requiring proactive maintenance and/or replacement; · Requesting scheduling of additional resource instance data collection to assist in the analysis activity; · Requesting scheduling of resource instance performance testing to assist in analysis activity; · Developing and managing resource infrastructure and resource instance proactive maintenance programs; · Requesting resource provisioning activity to prevent anticipated resource troubles associated with capacity limitations identified in the analysis activities;
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· Reporting outcomes of trend analysis to Resource Development & Management processes to influence new and/or modified resource infrastructure development;

(Activity “1.1.3.1.3.2 Review Resource Trouble Management Operational Reports “ to “1.1.3.1.3.15 Continue to monitor”, This Resource Trouble Management Process improvement will support all the matters above about Resource Trouble Management processes; Segment 1.1.3.1.3, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)

· Establishing and managing resource instance spares holding facilities, including arrangements with suppliers/partners for vendor managed spares (the actual commercial agreement is negotiated using Supply Chain Development & Management processes); (Note 3)

· Management of issuing and re-stocking of spares;

· Establishing and managing resource instance return and repair programs and associated processes, including both service provider and supplier/partner repair activities;

(Activity “1.1.3.1.3.24 Receive Spare Part(s) request “ to “1.1.3.1.3.27 Send copy of PO to warehouse”; Segment 1.1.3.1.3, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)

· Tracking and monitoring of the Resource Trouble Management processes and associated costs (including where resource infrastructure is deployed and managed by third parties), and reporting on the capability of the Resource Trouble Management processes;

· Establishing and managing resource trouble notification facilities and lists to support the Resource Trouble Management notification and reporting processes; and

(Activity “1.1.3.1.3.2 Review Resource Trouble Management Operational Reports “ to “1.1.3.1.3.15 Continue to monitor”, This Resource Trouble Management Process improvement will support all the matters above about Resource Trouble Management processes; Segment 1.1.3.1.3,

		<p>Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)</p> <ul style="list-style-type: none"> Supporting the Support Service Problem Management process (Note 4)
<p>1.1.3.1.4 Enable Resource Data Collection & Distribution</p>	<p>Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc</p>	<p>Brief Description</p> <p>Administering and management of the processes which enable the effective operation of the resource data collection and data distribution network, and monitoring, managing and reporting on the capability of the Resource Data Collection & Distribution processes.</p> <p>(Segment 1.1.3.1.4, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)</p> <p>Extended Description</p> <p>The responsibilities of the Enable Resource Data Collection & Distribution processes are twofold - administering and management of the processes which enable the effective operation of the resource data collection and data distribution infrastructure, and monitoring, managing and reporting on the capability of the Resource Data Collection & Distribution processes.</p> <p>The Resource Data Collection & Distribution processes may be either scheduled activities, or may be triggered as a result of ad-hoc events.</p> <p>(Segment 1.1.3.1.4, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)</p> <p>Responsibilities of these processes include, but are not limited to:</p> <ul style="list-style-type: none"> Administering and managing the scheduling of resource data collection and resource data distribution; Managing the registration and access control processes used by other processes to gain access to the collected resource data; Managing the registration and access control processes that enable processes to download resource data to be distributed to identified resource instances;

		<ul style="list-style-type: none"> · Establishing and managing resource data storage facilities, and associated management processes, within the resource data collection and resource data distribution infrastructure, to be used as temporary data holding facilities as required; · Tracking and monitoring of the Resource Data Collection and Distribution processes and associated costs, and reporting on the capability of the Resource Data Collection and Distribution processes; and <p>(Activity “1.1.3.1.4.17 Review Resource Data Collection & Distribution Operational Reports “ to “1.1.3.1.4.23 Continue to monitor”, This Resource Data Collection & Distribution Process improvement will support all the matters above about Resource Data Collection & Distribution processes; Segment 1.1.3.1.4, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)</p> <ul style="list-style-type: none"> · Identifying any technical driven shortcomings of the resource data collection and resource data distribution infrastructures, and providing input to Resource Development & Management processes to rectify these issues. <p>(Activity “1.1.3.1.4.2 Review report details with recipient“ to “1.1.3.1.4.16 Report Data Collection & Reporting Status”, This Review the resource data collection & distribution tools or output will support all the matters above about technical driven shortcomings of the resource data collection and resource data distribution infrastructures; Segment 1.1.3.1.4, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)</p> <p>Note that the underlying resource infrastructure used for the actual transport of resource data are managed as appropriate by other processes within the RM&O and RD&M horizontal process groupings (Segment 1.1.3.1.4, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)</p>
1.1.3.1.5 Manage Resource Inventory	Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc	<p>Brief Description</p> <p>Establish, manage and administer the enterprise's resource inventory, as embodied in the Resource Inventory Database, and monitor and report on the</p>

usage and access to the resource inventory, and the quality of the data maintained in it (Segment 1.1.3.1.5, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)

Extended Description

The responsibilities of the Manage Resource Inventory processes are twofold - establish, manage and administer the enterprise's resource inventory, as embodied in the Resource Inventory Database, and monitor and report on the usage and access to the resource inventory, and the quality of the data maintained in it.

The resource inventory maintains records of all resource infrastructure and resource instance configuration, version, and status details. It also records test and performance results and any other resource related- information, required to support RM&O and other processes.

The resource inventory is also responsible for maintaining the association between service instances and resource instances, created as a result of the Resource Provisioning Management processes.

(1.1.3.1.5, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)

Responsibilities of these processes include, but are not limited to:

- Identifying the inventory-relevant information requirements to be captured for resource infrastructure and resource instances;

- Identifying, establishing and maintaining resource inventory repository facilities;

- Establishing and managing the resource inventory management and information capture processes;

- Managing the registration and access control processes that enable processes to create, modify, update, delete and/or download resource data to and from the resource inventory;

(Activity "1.1.3.1.5.15 Review Resource Inventory Operational Reports " to "1.1.3.1.5.27 Continue to monitor", This Resource Inventory operation improvement will support all the matters above about Resource Inventory processes; Segment 1.1.3.1.5, Section 7, Huawei_MS Network OM

		<p>Process Design - RM&O Support & Readiness Management - V.1.0.doc)</p> <ul style="list-style-type: none"> · Ensuring the resource inventory repository accurately captures and records all identified resource infrastructure and resource instance details, through use of automated or manual audits; <p>(Activity “1.1.3.1.5.2 Extract inventory from IM system “ to “1.1.3.1.5.14 Report Data Cleanliness”, This Resource Inventory data completeness maintenance will support all the matters above about the resource inventory cleanness; Segment 1.1.3.1.5, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)</p> <ul style="list-style-type: none"> · Tracking and monitoring of the usage of, and access to, the resource inventory repository and associated costs, and reporting on the findings; and · Identifying any technical driven shortcomings of the resource inventory repository, and providing input to Resource Development & Management processes to rectify these issues. <p>(Activity “1.1.3.1.5.15 Review Resource Inventory Operational Reports “ to “1.1.3.1.5.27 Continue to monitor”, This Resource Inventory operation improvement will support all the matters above about Resource Inventory processes; Segment 1.1.3.1.5, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)</p>
1.1.3.1.7 Manage Logistics	Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc	<p>Brief Description</p> <p>Manage and control warehousing, stock level management, physical distribution and transport of purchased resources and consumable goods. (Segment 1.1.3.1.7, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)</p> <p>Extended Description</p> <p>The responsibility of the Manage Logistics processes is twofold - manage and control warehousing, stock management, physical distribution and transport of purchased resources and consumable goods, and monitoring, managing and reporting on the capability of the Manage Logistics processes.</p> <p>These processes are applicable for both resources managed by the processes in the RM&O processes</p>

as well as the myriad of consumable goods used by the enterprise in its day-to-day activities, such as paper, stationery, etc.

(Segment 1.1.3.1.7, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)

These processes manage all operational processes associated with the storage and distribution of purchased resources and consumable goods from the supplier. In addition, these processes are responsible for initiating orders for consumable goods, spare parts and for monitoring and reporting on progress of consumable goods orders. The actual order placed is managed through the appropriate S/PRM processes.

These purchased items may be temporarily stored in enterprise, vendor or third party managed warehouses before being delivered to smaller distribution points, or being delivered direct to site. Or alternatively they may be delivered directly to site from supplier's facilities.

These processes are responsible for determining the distribution path for individual resources and consumable goods.

(Activity "1.1.3.1.7.19 Count Physical Stock Levels " to "1.1.3.1.7.27 End Stock Level Review", This Order spare part will support all the matters above; Segment 1.1.3.1.7, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)

These processes are responsible for the internal operational processes associated with managing a warehouse including aspects such as yard management, dock management, pick management, etc. These processes track all goods stored in the warehouse from the time of inward delivery to outwards dispatch.

(Activity "1.1.3.1.7.42 Review Inventory Plan " to "1.1.3.1.7.49 End Inventory Plan review", This Inventory Plan review will support all the matters above; Segment 1.1.3.1.7, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)

These processes manage the co-ordination and control of transport infrastructure, including land, air and sea transport capabilities. The transport may be owned and managed by the enterprise, the vendor

or a third-party. Different parties may be responsible for different aspects of the overall end-end transport requirements, i.e., a vendor may deliver to a warehouse, and a third party from the warehouse to site. These processes are responsible for determining truck loads, distribution routes, etc.

To the extent that the above processes are managed by either the supplier, or by third parties, the enterprise processes are responsible for initiating requests, and for monitoring, tracking and reporting on the operation of the supplier, and/or third party.

(Activity “1.1.3.1.7.50 Review Warehouse Management Plan “ to “1.1.3.1.7.56 End Warehouse Management Plan review”, This Warehouse Management Plan review will support all the matters above; Segment 1.1.3.1.7, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)

Each of the above processes has sub-processes responsible for:

- Managing the registration and access control processes that enable enterprise processes to create, modify, update, delete and/or download individual requests into supplier and/or third party systems associated with any of the above processes; (Note 5)

- Managing the registration and access control processes that enable supplier and/or third party processes to create, modify, update, delete and/or download relevant details into enterprise systems associated with any of the above processes; (Note 6)

- Managing of issuing and re stocking of spares;

(Activity “1.1.3.1.7.1 Check part is in stock with sufficient quantity “ to “1.1.3.1.7.18 Update status”, This Request spare from warehouse will support all the matters above about issuing spares; Activity “1.1.3.1.7.28 Receive request to return part “ to “1.1.3.1.7.41 Restock parts”, This Return spare part will support all the matters above about re stocking spares; Segment 1.1.3.1.7, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)

		<p>(Segment 1.1.3.1.7, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)</p> <ul style="list-style-type: none"> · Tracking and monitoring of the usage of, and access to, the specific process and associated costs of the specific processes, and reporting on the findings; and · Identifying any technical driven shortcomings of the specific automated support capabilities, and providing input to Resource Development & Management processes to rectify these issues. <p>(Note 7)</p>
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Note 1. *The network handover support by the “Review PAC (Preliminary Acceptance Certification) open issues” sub-process in 1.1.3.1.2 Enable Resource Performance Management. (Activity “1.1.3.1.2.14 Review PAC open issues “ to “1.1.3.1.2.24 Report PAC Open Issue Status”, This Review PAC open issues will support all the matters above about network handover; Segment 1.1.3.1.2, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)*

Note 2. *This interface will defined when Support Service Quality Management process have been designed*

Note 3. *The resource instance spares holding facilities management support by 1.1.3.1.7 Manage Logistics. (Activity “1.1.3.1.7.1 Check part is in stock with sufficient quantity “ to “1.1.3.1.7.18 Update status”; Segment 1.1.3.1.7, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)*

Note 4. *This interface will defined when Support Service Problem Management process have been designed*

Note 5. *This tasks support by the 1.1.4.2 S/P Requisition Management*

Note 6. *This tasks support by the 1.1.4.6 S/P Interface Management*

Note 7. *Do not like other process, 1.1.3.1.7 Manage Logistics have no process to Tracking and monitor or identify any technical driven shortcomings.*

1.1.3.2 Resource Provisioning

eTOM Process Element	Huawei Mapping	
1.1.3.2 Resource Provisioning	Alignment	Mapping Content
1.1.3.2.1 Allocate & Install Resource	Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc	<p>Brief Description</p> <p>Allocate specific resources required to support a specific service (Segment 1.1.3.2.1, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>Extended Description</p> <p>The objective of the Allocate & Deliver Resource processes is to allocate specific resources required to support a specific service.</p> <p>These activities include but are not limited to:</p> <ul style="list-style-type: none"> Investigating the ability to be able to satisfy specific service orders as a part of a feasibility check; <p>(Activity “1.1.3.2.8.14 Create task list” to “1.1.3.2.8.16 Create Pre-Order Inquiry”, This Pre-Order Inquiry is the initial the task about feasibility check. Activity “1.1.3.2.1.3 Create design for physical circuit” and “1.1.3.2.1.7 Create design for logical circuit” will fulfill the feasibility check; Segment 1.1.3.2.1 and 1.1.3.2.2, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <ul style="list-style-type: none"> Reserving or allocating specific resources in response to issued resource orders; <p>(Activity “1.1.3.2.1.4 Allocate physical resource” and “1.1.3.2.1.8 Allocate logical resource”; Segment 1.1.3.2.1, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <ul style="list-style-type: none"> Confirming availability of, or initiating an order for, equipment or software with a Supplier/Partner; and

· Installing and commissioning specific resources following delivery.

(Activity “1.1.3.2.1.12 Create custom build plan” to “1.1.3.2.1.14 Execute build plan”; Segment 1.1.3.2.1, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)

Where the Allocate & Deliver Resource processes are requested by a resource order issued as part of a pre-order feasibility check, these processes determine whether there are adequate specific resources available to fulfill the request. Where there are not sufficient specific resources available, these processes may initiate enquiries using the relevant S/PRM (Note 1) and/or Resource Support & Readiness processes to determine lead times for specific resource availability. Depending on business rules, and on any specific levels of commitment contained in the initiating service order, these processes may reserve specific resources linked to the initiating service order for a period of time, and releasing them when the time period has expired. These processes are responsible for creating a response to the initiating processes with respect to the feasibility assessment.

(Activity “1.1.3.2.8.14 Create task list” to “1.1.3.2.8.16 Create Pre-Order Inquiry”, This Pre-Order Inquiry is the initial task about feasibility check. Activity “1.1.3.2.1.3 Create design for physical circuit” and “1.1.3.2.1.7 Create design for logical circuit” will fulfill the feasibility check; Segment 1.1.3.2.1 and 1.1.3.2.2, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)

Where the Allocate & Deliver Resource processes are requested by a resource order issued in response to a confirmed service order, these processes are responsible for allocating the specific resources required to satisfy the initiating service order. Any previously reserved specific resources are marked as allocated.

(Activity “1.1.3.2.8.17 Create task list “ to “1.1.3.2.8.20 Create resource order”, This is the creation of the firm order. Activity “1.1.3.2.1.3 Create design for physical circuit” and “1.1.3.2.1.7 Create design for logical circuit” will fulfill the order; Segment 1.1.3.2.1 and 1.1.3.2.2, Section 7, Huawei_MS Network OM Process Design -

		<p>Resource Provisioning - V.1.0.doc)</p> <p>These process are responsible for initiating, using the S/PRM processes, (Note 2) resource requisition orders for any specific resources in shortfall. Sufficient information is supplied with the resource requisition orders to ensure that the appropriate specific resources are delivered to the appropriate location for installation and configuration. This may include, for example, a central office, a transmission room, or the customer premise.</p> <p>(Activity “1.1.3.2.1.5 Mark resource order”, 1.1.3.2.1.9 Mark resource order and follow interfaces; Segment 1.1.3.2.1, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>Following delivery, these processes are responsible for installing and commissioning specific resources, and updating the resource inventory as part of these processes. Where installation of the specific resources requires an upfront major resource infrastructure, the installation of both the resource infrastructure and specific resources may be undertaken under the control of the Support Resource Provisioning processes.</p> <p>(Activity “1.1.3.2.1.12 Create custom build plan” to “1.1.3.2.1.14 Execute build plan”; Segment 1.1.3.2.1, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>The Allocate & Deliver Resource processes will closely interact with the Manage Resource Inventory processes to determine availability of physical and logical specific resources to select from, thereby applying specific selection criteria. (Note 3)</p>
<p>1.1.3.2.2 Configure & Activate Resource</p>	<p>Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc</p>	<p>Brief Description</p> <p>Configure and activate the specific resources allocated against an issued resource order</p> <p>(Segment 1.1.3.2.2, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>Extended Description</p> <p>The objective of the Configure & Activate Resource Processes is to configure and activate the specific resources allocated against an issued resource order. These processes are responsible for, but not limited to:</p>

		<p>(Segment 1.1.3.2.2, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <ul style="list-style-type: none"> Assessing and planning the approach to be undertaken for configuration and activation; <p>(Activity “1.1.3.2.2.5 Notify/schedule activity with customer”, Segment 1.1.3.2.2, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <ul style="list-style-type: none"> Re-use standard configuration and activation processes applicable to specific resources; <p>(Activity “1.1.3.2.2.6 Execute configuration/activation activities”, Segment 1.1.3.2.2, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <ul style="list-style-type: none"> Providing notifications as required if the activation activity requires a planned outage or is likely to initiate false specific resource alarm event notifications; and <p>(Activity “1.1.3.2.2.5 Notify/schedule activity with customer”, Segment 1.1.3.2.2, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <ul style="list-style-type: none"> Updating the information contained in the resource inventory as to the configuration of specific resources and their status. <p>At the successful conclusion of these activities, the status of the specific resources will be changed from allocated to activated, which means they are in use. (Note 4)</p>
1.1.3.2.3 Test Resource	Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc	<p>Brief Description</p> <ul style="list-style-type: none"> Test specific resources to ensure they are operating within normal parameters <p>(Segment 1.1.3.2.3, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>Extended Description</p> <p>The responsibility of the Test Resource processes is to test specific resources to ensure they are operating within normal parameters. The objective is to verify whether the resources are working correctly and meet the appropriate performance levels.</p> <p>These processes test specific resources against</p>

		<p>supplier/partner defined test plans, or against test plans developed by the service provider. Where appropriate test plans are not available these processes are responsible for developing appropriate test plans. These processes are also responsible for capturing and storing the test results for historical and downstream testing comparison purposes.</p> <p>(Activity “1.1.3.2.3.2 Schedule test procedure” and “1.1.3.2.3.3 Organize test conditions/data”, Segment 1.1.3.2.3, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>If these tests succeed, the specific resources will be marked as in-service which means the specific resources are available for use.</p> <p>(Activity “1.1.3.2.3.5 Execute resource order tests”, Segment 1.1.3.2.3, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p>
<p>1.1.3.2.5 Track & Manage Resource Provisioning</p>	<p>Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc</p>	<p>Brief Description</p> <p>Ensure resource provisioning activities are assigned, managed and tracked efficiently (Segment 1.1.3.2.5, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>Extended Description</p> <p>The objective of the Track & Manage Resource Provisioning process is to ensure resource provisioning activities are assigned, managed and tracked efficiently.</p> <p>Responsibilities of these processes include, but are not limited to:</p> <ul style="list-style-type: none"> • Scheduling, assigning and coordinating resource provisioning related activities; <p>(Activity “1.1.3.2.5.6 Determine Design/Disconnected Plan” to Activity “1.1.3.2.5.8 Determine Test Plan”, Segment 1.1.3.2.5, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <ul style="list-style-type: none"> • Escalating status of resource orders in accordance with local policy; <p>(Activity “1.1.3.2.5.3 Issue escalation of jeopardy situation”, Segment 1.1.3.2.5, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p>

	<ul style="list-style-type: none"> · Undertaking necessary tracking of the execution process; (Activity “1.1.3.2.5.1 Update resource order status”, Segment 1.1.3.2.5, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc) · Adding additional information to an existing resource order; (Activity “1.1.3.2.8.2 Check status of existing order” to “1.1.3.2.8.11 Update Firm-Order Resource Order(s)”, “1.1.3.2.5.1 Update resource order status”, Segment 1.1.3.2.8 and 1.1.3.2.5, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc) · Modifying information in an existing resource order; (Activity “1.1.3.2.8.2 Check status of existing order” to “1.1.3.2.8.11 Update Firm-Order Resource Order(s)”, “1.1.3.2.5.1 Update resource order status”, Segment 1.1.3.2.8 and 1.1.3.2.5, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc) · Modifying the resource order status; (Activity “1.1.3.2.5.1 Update resource order status”, Segment 1.1.3.2.5, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc) · Canceling a resource order when the initiating service order is cancelled; (Activity “1.1.3.2.8.2 Check status of existing order” to “1.1.3.2.8.11 Update Firm-Order Resource Order(s)”, “1.1.3.2.5.1 Update resource order status”, Segment 1.1.3.2.8 and 1.1.3.2.5, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc) · Monitoring the jeopardy status of resource orders, and escalating resource orders as necessary; and (Activity “1.1.3.2.5.3 Issue escalation of jeopardy situation”, Segment 1.1.3.2.5, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc) · Indicating completion of a resource order by modifying the resource order status.
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		<p>(Activity “1.1.3.2.5.1 Update resource order status”, Segment 1.1.3.2.5, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>These processes will co-ordinate all the actions necessary in order to guarantee that all tasks are finished at the appropriate time and in the appropriate sequence.</p> <p>(Activity “1.1.3.2.5.2 Coordinate with other resource order”, Segment 1.1.3.2.5, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>The Track & Manage Resource Provisioning processes are responsible for engaging external suppliers in provisioning activities when these have been outsourced or contracted to external parties.</p> <p>(Activity “1.1.3.2.5.9 Send Request” and “1.1.3.2.5.10 receive deliverable from S/P”, Segment 1.1.3.2.5, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>The Track & Manage Resource Provisioning processes will also inform the Close Resource Order processes by modifying the resource order status to complete when the resource order has been fulfilled.</p> <p>(Activity “1.1.3.2.5.1 Update resource order status”, Segment 1.1.3.2.5, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p>
<p>1.1.3.2.6 Report Resource Provisioning</p>	<p>Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc</p>	<p>Brief Description</p> <p>Monitor the status of resource orders, provide notifications of any changes and provide management reports.</p> <p>(Segment 1.1.3.2.6, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>Extended Description</p> <p>The objective of the Report Resource Provisioning processes is to monitor the status of resource orders, provide notifications of any changes and provide management reports.</p> <p>These processes are responsible for continuously monitoring the status of resource orders and managing notifications to processes and other</p>

		<p>parties registered to receive notifications of any status changes. Notification lists are managed and maintained by the Enable Resource Provisioning processes.</p> <p>(Activity “1.1.3.2.6.1 Monitor Resource Provisioning Status” and “1.1.3.2.6.2 Distribute Notifications”, Segment 1.1.3.2.6, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>These processes record, analyze and assess the resource order status changes to provide management reports and any specialized summaries of the efficiency and effectiveness of the overall Resource Provisioning process. These specialized summaries could be specific reports required by specific audiences.</p> <p>(Activity “1.1.3.2.6.3 Monitor report generation schedule” to “1.1.3.2.6.9 Notify requestor”, Segment 1.1.3.2.6, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p>
<p>1.1.3.2.7 Close Resource Order</p>	<p>Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc</p>	<p>Brief Description</p> <p>This process monitors the status of the order and changes the status to closed when it is completed. (Segment 1.1.3.2.7, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>Extended Description</p> <p>The objective of the Close Resource Order processes is to close a resource order when the resource provisioning activities have been completed.</p> <p>These processes monitor the status of all open resource orders, and recognize that a resource order is ready to be closed when the status is changed to completed.</p> <p>(Segment 1.1.3.2.7, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p>
<p>1.1.3.2.8 Issue Resource Orders</p>	<p>Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc</p>	<p>Brief Description</p> <p>Issue correct and complete resource orders (Segment 1.1.3.2.8, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>Extended Description</p> <p>The purpose of the Issue Resource Orders processes is to issue correct and complete resource orders.</p>

The resource orders may be required to satisfy pertinent service order information received, may arise as a result of requests for resource provisioning to satisfy resource trouble recovery activities, may arise to alleviate resource performance issues,(Note 5) or may arise as a result of information received from suppliers/partners in relations to specific resources.

(Activity “1.1.3.2.8.1 Receive Provisioning Request”, Segment 1.1.3.2.8, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)

These processes assess the information contained in the service order, through a resource order request, initiating resource process request or supplier/partner initiated request, to determine the associated resource orders that need to be issued.

(Activity “1.1.3.2.8.1 Receive Provisioning Request”, Segment 1.1.3.2.8, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)

The issued resource order may require a feasibility assessment to be undertaken, may require new provisioning activities for specific resources, may require a change to a previously issued resource order or may require the deletion/recovery of previously delivered specific resources.

(Decision point “New Order or In Flight Order?” after Activity “1.1.3.2.8.1 Receive Provisioning Request”, Segment 1.1.3.2.8, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)

Where the initiating request or service order has a standard set of associated resource orders, this process is responsible for issuing the resource orders, and for creating a record of the relevant initiating request or service order information and the associated resource orders.

(Activity “1.1.3.2.8.17 Create task list” to “1.1.3.2.8.20 Create resource order”, Segment 1.1.3.2.8, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)

Where the initiating request or service order has special or unusual requirements, and a specific feasibility assessment has not been previously

		<p>undertaken, this process marks the issued resource order as requiring special handling, and passes management for further processing to the Track & Manage Resource Provisioning process.</p> <p>(Activity “1.1.3.2.8.17 Create task list” to “1.1.3.2.8.20 Create resource order”, Segment 1.1.3.2.8, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>Where the initiating request or service order has special or unusual requirements, and a specific feasibility assessment has been previously undertaken, this process issues the previously determined resource orders.</p> <p>(Activity “1.1.3.2.8.18 Associate Tasks with Pre-Order inquiry results”, Segment 1.1.3.2.8, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>The orchestration, if required, and tracking of the progress of a resource order is the responsibility of the Track & Manage Resource Provisioning processes.</p> <p>(Segment 1.1.3.2.8, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p>
<p>1.1.3.2.9 Recover Resource</p>	<p>Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc</p>	<p>Brief Description</p> <p>Recover specific resources that are no longer required.</p> <p>(Segment 1.1.3.2.9, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>Extended Description</p> <p>The responsibility of the Recover Resource processes is to recover specific resources that are no longer required.</p> <p>These processes follow recovery plans specified by the supplier/partner, or follow recovery plans developed by the service provider. Where appropriate recovery plans are not available these processes are responsible for developing appropriate recovery plans.</p> <p>(Activity “1.1.3.2.9.4 Create Uninstall Plan”, Segment 1.1.3.2.9, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>Where recovery of resources is likely to impact other in-use specific resources or specific services, this</p>

		<p>process is responsible for providing appropriate notification of the recovery proposal and ensuring authorization is received to proceed with the recovery plan. When the recovery activity is about to commence, these processes are responsible for notifying when recovery work is commencing and when it is completed.</p> <p>(Activity “1.1.3.2.9.5 Receive Approval for Uninstall Plan” and “1.1.3.2.9.6 Schedule uninstall plan”, Segment 1.1.3.2.9, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p> <p>When recovered, the specific resources will be marked as unallocated.</p> <p>(Activity “1.1.3.2.9.7 Uninstall equipment”, Segment 1.1.3.2.9, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)</p>
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Note 1. *The interface with S/P layer support by the 1.1.3.2.5 Track & Manage Resource Provisioning. (Segment 1.1.3.2.5, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)*

Note 2. *The interface with S/P layer support by the 1.1.3.2.5 Track & Manage Resource Provisioning (Segment 1.1.3.2.5, Section 7, Huawei_MS Network OM Process Design - Resource Provisioning - V.1.0.doc)*

Note 3. *The 1.1.3.1.5 Manage Resource Inventory process will maintain the physical and logical specific resources selection criteria. The 1.1.3.2.1 Allocate & Install Resource process will use those selection criteria to determine availability, but these two processes have no direct interface. (Segment 1.1.3.1.5, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)*

Note 4. *Since Huawei MS Network OM process design have been aligned with ITIL, the status and change of the resources support by the 1.3.3.6 ITIL Service Asset and Configuration Management process. The 1.1.3.2.1 Allocate & Install Resource process has an interface with 1.3.3.6 ITIL Service Asset and Configuration Management process for this function.*

Note 5.. *The resource order requirements as a result of requests for resource provisioning to satisfy resource trouble recovery activities and alleviate resource performance issues analyze by the 1.1.3.1.3 Support Resource Trouble Management and 1.1.3.1.2 Enable Resource Performance Management first. After analysis, the resource order arises by the 1.1.3.1.3 Support Resource Trouble Management and 1.1.3.1.2 Enable Resource Performance Management. (Segment 1.1.3.1.2 and 1.1.3.1.3, Section 7, Huawei_MS Network OM Process Design - RM&O Support & Readiness Management - V.1.0.doc)*

1.1.3.3 Resource Trouble Management

eTOM Process Element	Huawei Mapping	
1.1.3.3 Resource Trouble Management	Alignment	Mapping Content
1.1.3.3.1 Survey & Analyze Resource Trouble	Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc	<p>Brief Description</p> <p>Monitor resource alarm event notifications and manage resource alarm event records in real-time (Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <p>Extended Description</p> <p>The objective of the Survey & Analyze Resource Trouble processes is to monitor resource alarm event notifications and manage resource alarm event records in real-time.</p> <p>(Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <p>Responsibilities of the Survey & Analyze Resource Trouble processes include, but are not limited to:</p> <ul style="list-style-type: none"> · Detecting and collecting resource alarm event notifications; <p>(Activity “1.1.3.3.1.1 Detect Resource Alarm Event Notifications”, Segment 1.1.3.3.1, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <ul style="list-style-type: none"> · Initiating and managing resource alarm event records; <p>(Activity “1.1.3.3.1.3 Check Alarm Context”, “1.1.3.3.1.4 Classify Resource Alarm Event” and “1.1.3.3.1.5 Normalize Alarm Event”, Segment 1.1.3.3.1, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <ul style="list-style-type: none"> · Performing resource alarm event notification localization analysis; <p>(Activity “1.1.3.3.1.12 Analyze Resource Alarm”,</p>

Segment 1.1.3.3.1, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)

· Correlating and filtering resource alarm event records;

(Activity “1.1.3.3.1.7 Filter Alarm” and “1.1.3.3.1.10 Correlate Alarm”, Segment 1.1.3.3.1, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)

· Reporting resource alarm event record status changes to other processes; and

(Activity “1.1.3.3.1.17 Update Alarm”, “1.1.3.3.5.2 Distribute Notifications” and “1.1.3.3.5.9 Delivery Report to Requester”, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)

· Managing resource alarm event record jeopardy conditions.

(Activity “1.1.3.3.1.11 Trigger Pre-defined Action”, Segment 1.1.3.3.1, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)

Resource alarm event notification analysis encompasses the identification of the resource alarm event in terms of reporting entity and nature of the resource alarm event. It will then analyze the resource alarm events based on a number of criteria and then suppress redundant, transient or implied resource alarm events by means of filtering and correlation. It includes the notification of new resource alarm event records, or status changes of previously reported resource alarm event records, as well as abatement messages when resource alarm event records have been cleared.

(Activity “1.1.3.3.1.12 Analyze Resource Alarm” and “1.1.3.3.1.18 Cancel Alarm”, Segment 1.1.3.3.1, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)

The analysis will correlate resource alarm event

notifications to planned outage notifications to remove false resource alarm event notifications arising as a result of the planned outage activity.

(Activity “1.1.3.3.1.6 Tag Alarm “, Segment 1.1.3.3.1, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)

These processes may determine that a resource alarm event notification may represent a service impacting condition. In these circumstances this process is responsible for indicating a potential service problem to the Service Problem Management processes. As a part of this indication this process is responsible for identifying the impacted service instances associated with the resource instances presenting alarm event notifications and passing this information to the Service Problem Management processes.

(Activity “1.1.3.3.1.13 Determine Service Impact“, Segment 1.1.3.3.1, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)

Resource alarm event record correlation and filtering encompasses the correlation of redundant, transient or implied resource alarm event notifications with a specific “root cause” resource alarm event notification and associated resource alarm event record.

(Activity “1.1.3.3.1.7 Filter Alarm” and “1.1.3.3.1.10 Correlate Alarm”, Segment 1.1.3.3.1, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)

The Survey & Analyze Resource Trouble processes might trigger a well-defined action based on specific resource alarm event notification information as well as the non-arrival of resource alarm event notification information after a specific time interval has elapsed.

(Activity “1.1.3.3.1.11 Trigger Pre-defined Action”, Segment 1.1.3.3.1, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)

		<p>These processes are also responsible for monitoring and triggering the appropriate action when a resource alarm event record is not cleared within a pre-defined period of time. (Activity “1.1.3.3.1.11 Trigger Pre-defined Action”, Segment 1.1.3.3.1, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p>
<p>1.1.3.3.2 Localize Resource Trouble</p>	<p>Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc</p>	<p>Brief Description</p> <p>Identify the root cause of the specific resource trouble</p> <p>(Section 2, and Segment 1.1.3.3.2 Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <p>Extended Description</p> <p>The objective of the Localize Resource Trouble processes is to identify the root cause of the specific resource trouble. These processes are invoked by the Track & Manage Resource Trouble processes.</p> <p>(Section 2, and Segment 1.1.3.3.2 Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc;</p> <p>Further, Activity “1.1.3.3.2.1 Perform Initial Diagnosis”, “1.1.3.3.2.7 Perform Diagnosis and Analyze “ and “1.1.3.3.2.13 Carry Out Further Diagnostics“, Segment 1.1.3.3.2, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <p>The responsibilities of these processes include, but are not limited to:</p> <ul style="list-style-type: none"> · Verifying whether the resource configuration matches the appropriate service features; <p>(Activity “1.1.3.3.2.13 Carry Out Further Diagnostics“, Segment 1.1.3.3.2, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <ul style="list-style-type: none"> · Performing diagnostics against the specific resources; · Running tests against the specific resources;

		<p>(Activity “1.1.3.3.2.7 Perform Diagnosis and Analyze”, Segment 1.1.3.3.2, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <ul style="list-style-type: none"> Starting and stopping audits against specific resources; and <p>(Activity “1.1.3.3.2.17 Work out Resolution“, Segment 1.1.3.3.2, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <ul style="list-style-type: none"> Scheduling routine testing of the specific resources. (Note 2) <p>The Localize Resource Trouble processes will make the results of the root cause analysis available to other processes. The Localize Resource Trouble processes will update the open resource trouble report, as required during the assessment, and when the root cause has been identified.</p> <p>(Activity “1.1.3.3.2.14 Determine Root Cause“, Segment 1.1.3.3.2, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <p>When the process is complete the Localize Resource Trouble processes will notify the Track & Manage Resource Trouble processes. (There is a link to indicate the notification from Localize into Track&Manage after the activity “1.1.3.3.2.18 Create Known Error“, Segment 1.1.3.3.2, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p>
<p>1.1.3.3.3 Correct & Resolve Resource Trouble</p>	<p>Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc</p>	<p>Brief Description</p> <p>Restore or replace resources that have failed as efficiently as possible (Section 2, and Segment 1.1.3.3.3, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <p>Extended Description</p> <p>The objective of the Correct & Resolve Resource Trouble processes is to restore or replace resources that have failed as efficiently as possible.</p>

(Section 2, and Segment 1.1.3.3.3, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)

Based on the nature of the resource failure leading to the associated resource alarm event notification,

automatic restoration procedures might be triggered.

(Note 3) Manual restoration activity is assigned to the Correct & Resolve Resource Trouble processes from the Track & Manage Resource Trouble processes.

(Activity “1.1.3.3.4.9 Identify the Appropriate Party” and “1.1.3.3.3.1 Evaluate possible solution(s)”, Segment 1.1.3.3.3, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)

Depending on the nature of the specific resource failure, these processes may possibly repair or replace the failed unit or specific resource. These processes are also responsible for isolating a unit with a fault and managing the redundant resource units (e.g. hot standby).

(Activity “1.1.3.3.3.7 Implement Resolution”, Segment 1.1.3.3.3, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)

For large resource failures requiring extensive repair and/or replacement activity to restore normal operation, these processes will attempt to implement work-arounds to recover the specific resource operation. In these circumstances, recover of normal operation may require invocation of the Support Resource Trouble Management processes.

(Activity “1.1.3.3.3.5 Request Major Failure Support”, Segment 1.1.3.3.3, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)

They will also report successful restoration of normal operation, restoration through temporary work-arounds or an unsuccessful attempt at restoration to Track & Manage Resource Trouble through updates to the associated resource trouble

		<p>report. (Activity “1.1.3.3.13 Result to T&M”, Segment 1.1.3.3.3, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p>
1.1.3.3.4 Track & Manage Resource Trouble	Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc	<p>Brief Description</p> <p>Ensure testing, repair and restoration activities are assigned, coordinated and tracked efficiently, and that escalation is invoked as required for any open resource trouble reports in jeopardy (Section 2, and Segment 1.1.3.3.4, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <p>Extended Description</p> <p>The objective of the Track & Manage Resource Trouble is to ensure testing, repair and restoration activities are assigned, coordinated and tracked efficiently, and that escalation is invoked as required for any open resource trouble reports in jeopardy.</p> <p>(Section 2, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <p>Responsibilities of these processes include, but are not limited to:</p> <ul style="list-style-type: none"> · Initiating first-in testing using automated remote testing capabilities; (Note 4) · Adding additional information to an open resource trouble report based on the first-in testing; (Note 4) · Scheduling, assigning and coordinating repair and restoration activities; <p>(Activity “1.1.3.3.4.6 Analyze for Assignment”, “1.1.3.3.4.7 Identify Type of Request” and “1.1.3.3.4.9 Identify the Appropriate Party”, Segment 1.1.3.3.4, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <ul style="list-style-type: none"> · Initiate any final testing to confirm clearance of the service problem; <p>(Activity “1.1.3.3.6.1 Verify Trouble Resolved”, Segment 1.1.3.3.6, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <ul style="list-style-type: none"> · Undertake necessary tracking of the execution progress;

		<p>(Activity “1.1.3.3.4.2 Monitor the Jeopardy Status”, Segment 1.1.3.3.4, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <ul style="list-style-type: none">· Modifying information in an existing resource trouble report based on assignments; (Activity “1.1.3.3.4.9 Identify the Appropriate Party”, Segment 1.1.3.3.4, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)· Modifying the resource trouble report status; (Activity “1.1.3.3.4.1 Update Resource Trouble Status”, Segment 1.1.3.3.4, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)· Canceling a resource trouble report when the specific trouble was related to a false alarm event; and (Activity “1.1.3.3.1.17 Update Alarm” and “1.1.3.3.4.1 Update Resource Trouble Status, Segment 1.1.3.3.4, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)· Monitoring the jeopardy status of open resource trouble reports, and escalating resource trouble reports as necessary. <p>These processes will co-ordinate all the actions necessary in order to guarantee that all tasks are finished at the appropriate time and in the appropriate sequence. (From Activity “1.1.3.3.4.2 Monitor the Jeopardy Status” to “1.1.3.3.4.9 Identify the Appropriate Party”, Segment 1.1.3.3.4, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p>
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		<p>The Track & Manage Resource Trouble processes are responsible for engaging external suppliers in correction and recovery activities when higher level expertise and/or higher level support is required to resolve the resource trouble. This engagement can be linked to the priority of the resource trouble report, and could occur automatically for highest priority resource trouble reports.</p> <p>(Activity “1.1.3.3.4.10 Engage External Suppliers”, Segment 1.1.3.3.4, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <p>The Track & Manage Resource Trouble processes will also inform the Close Resource Trouble processes by modifying the resource trouble report status to cleared when the resource trouble has been resolved.</p> <p>(Activity “1.1.3.3.4.7 Identify Type of Request”, Segment 1.1.3.3.4, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p>
<p>1.1.3.3.5 Report Resource Trouble</p>	<p>Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc</p>	<p>Brief Description</p> <p>Monitor the status of resource trouble reports, provide notifications of any changes and provide management reports</p> <p>(Section 2, and Segment 1.1.3.3.5(Page 57), Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <p>Extended Description</p> <p>The objective of the Report Resource Trouble processes is to monitor the status of resource trouble reports, provide notifications of any changes and provide management reports.</p> <p>These processes are responsible for continuously monitoring the status of resource trouble reports and managing notifications to processes and other parties registered to receive notifications of any status changes, for example, Resource Performance Management and Service Quality Management. Notification lists are managed and maintained by the Support Resource Trouble Management processes.</p> <p>(Segment 1.1.3.3.5(Page 57), Section 7, Huawei_MS Network OM Process Design - Resource Trouble</p>

		<p>Management - V.1.0.doc)</p> <p>These processes record, analyze and assess the resource trouble report status changes to provide management reports and any specialized summaries of the efficiency and effectiveness of the overall Resource Trouble Management process. These specialized summaries could be specific reports required by specific audiences.</p> <p>(Activity “1.1.3.3.5.1 Monitor Trouble Status” and from activity “1.1.3.3.5.4 Receive Ad-hoc Report Request” to “1.1.3.3.5.8 Generate Report”, Segment 1.1.3.3.5, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <p>These processes will make the necessary reports about the resource trouble that occurred, the root cause and the activities carried out for restoration.</p> <p>(Activity “1.1.3.3.5.3 Monitor Report Generation Schedule” and “1.1.3.3.5.8 Generate Report”, Segment 1.1.3.3.3, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p>
1.1.3.3.6 Close Resource Trouble Report	Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc	<p>Brief Description</p> <p>This process monitors the status of all open resource trouble reports, and recognizes that a resource trouble report is ready to be closed when the status is changed to cleared.</p> <p>(Section 2, and Segment 1.1.3.3.6(Page 60), Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <p>Extended Description</p> <p>The objective of the Close Resource Trouble Report processes is to close a resource trouble report when the resource trouble has been resolved.</p> <p>(Activity “1.1.3.3.6.1 Verify Trouble Resolved” and “1.1.3.3.6.5 Close Trouble Ticket”, Segment 1.1.3.3.6, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <p>These processes monitor the status of all open resource trouble reports, and recognize that a resource trouble report is ready to be closed when the status is changed to cleared.</p> <p>(Activity “1.1.3.3.6.6 Notify Close Status to T&M”, Segment 1.1.3.3.6, Section 7, Huawei_MS Network OM</p>

		Process Design - Resource Trouble Management - V.1.0.doc)
1.1.3.3.7 Create Resource Trouble Report	Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc	<p>Brief Description</p> <p>Create a new resource trouble report (Section 2, and Segment 1.1.3.3.7(Page 29), Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <p>Extended Description</p> <p>The objective of the Create Resource Trouble Report process is to create a new resource trouble report.</p> <p>(Section 2, and Segment 1.1.3.3.7(Page 29), Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <p>A new resource trouble report may be created as a result of resource alarm event notification analysis, and subsequent creation of new resource alarm event records, undertaken by the Survey & Analyze Resource Trouble processes, or at the request of analysis undertaken by other processes in the RM&O, SM&O (in particular a Service Trouble Report can generate one or more Resource Trouble Reports) or S/PRM layers which detect that some form of failure has occurred for which resource restoration activity is required to restore normal operation.</p> <p>(Activity “1.1.3.3.7.1 Collect Info for Resource Trouble”, also you may refer to other activities in this segment, Segment 1.1.3.3.7, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p> <p>If the resource trouble report is created as a result of a notification or request from processes other than the Survey & Analyze Resource Trouble processes, the Create Resource Trouble Report processes are responsible for converting the received information into a form suitable for the Resource Trouble Management processes, and for requesting additional information if required.</p> <p>(From activity “1.1.3.3.7.2 Validate Data” to activity “1.1.3.3.7.4 Create Trouble Ticket”, Segment 1.1.3.3.7, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p>

		<p>These processes will make estimates of the time to restore resource which will be included in the new resource trouble report so that other processes can gain access to this information.</p> <p>(Activity “1.1.3.3.7.12 Assign SLA Determined Restore Time”, Segment 1.1.3.3.7, Section 7, Huawei_MS Network OM Process Design - Resource Trouble Management - V.1.0.doc)</p>
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Note 1. *Alarm localization analysis is partial done in Survey&Analyze, the trouble shooting is done by Localize Resource Trouble.*

Note 2. *Routine testing is conducted in Preventive Maintenance, part of RMO Support and Readiness in eTOM. Please refer to Activity “1.3.3.12.13 Create request for standard preventative maintenance programs” in attached.*

Note 3. *It is addressed in Survey and Analyze Resource Trouble.*

Note 4. *These activities are located in Localize Resource Trouble.*

1.1.3.4 Resource Performance Management

eTOM Process Element	Huawei Mapping	
1.1.3.4 Resource Performance Management	Alignment	Mapping Content
1.1.3.4.1 Monitor Resource Performance	Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx	<p>Brief Description</p> <p>Monitor received resource performance information and undertake first-in detection. (Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p> <p>Extended Description</p> <p>The objective of the Monitor Resource Performance processes is to monitor received resource performance information and undertake first-in detection. (Segment 1.1.3.4.1, Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p> <p>The responsibilities of the processes include, but are not limited to:</p> <ul style="list-style-type: none"> ·Undertaking the role of first in detection by monitoring the received specific resource performance data. (Activity “1.1.3.4.1.1 Receive Raw Performance Data” to “1.1.3.4.1.6 Correlate Performance Data”, Segment 1.1.3.4.1 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx) ·Comparing the received specific resource performance data to performance standards set for each specific resource (available from the Resource Inventory); ·Assessing and recording received specific resource performance data which is within tolerance limits for performance standards, and for which continuous monitoring and measuring of specific resource performance is required; (Activity “1.1.3.4.1.7 Determine the impact”, Segment 1.1.3.4.1 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx) ·Recording the results of the continuous monitoring for reporting through the Report Resource Performance processes; (“ 1.1.3.4.1.2 Log Raw Performance Data” ,1.1.3.4.1 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx) <p>·Detecting performance threshold violations which represent specific</p>

		<p>resource failures due to abnormal performance;</p> <ul style="list-style-type: none"> ·Passing information about resource failures due to performance threshold violations to Resource Trouble Management to manage any necessary restoration activity as determined by that process;(Note 1, “1.1.3.4.6.10 Request to resource trouble management”, Segment 1.1.3.4.6, Section 7, Huawei_MS Network OM Process Design-Resource Performance Management Process- v0.13.docx) ·Passing information about potential specific service performance degradations arising from specific resource degradations to Service Quality Management to manage any necessary restoration activity as determined by that process; ·Detecting performance degradation for specific resources which provide early warning of potential issues; ·Forwarding resource performance degradation notifications to other Resource Performance Management processes, which manage activities to restore normal specific resource performance; and ·Logging specific resource performance degradation and violation details within the repository in the Manage Resource Inventory processes to ensure historical records are available to support the needs of other processes. (Activity “1.1.3.4.1.7Determine the impact”, Segment 1.1.3.4.1 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)
<p>1.1.3.4.2 Analyze Resource Performance</p>	<p>Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx</p>	<p>Brief Description</p> <p>Analyze and evaluate the performance of specific resources. (Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p> <p>Extended Description</p> <p>The objective of the Analyze Resource Performance processes is to analyze the information received from the Monitor Resource Performance process to evaluate the performance of a specific resource. (Segment 1.1.3.4.2,,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p> <p>The responsibilities of the processes include, but are not limited to:</p> <ul style="list-style-type: none"> ·Undertaking analysis as required on specific resource performance information received from the Monitor Resource Performance processes;(“1.1.3.4.2.1 Undertake preliminary analysis”, “1.1.3.4.2.2Determine specific diagnoses & tests”, “ 1.1.3.4.2.3Design DT/CQT test”, “ 1.1.3.4.2.5 Analyze test results”, “ 1.1.3.4.2.6Submit test report output”, Segment 1.1.3.4.2 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx) ·Initiating, modifying and cancelling continuous performance data collection schedules for specific resources required to analyze specific resource performance. These schedules are established

		<p>through requests sent to the Enable Resource Data Collection & Distribution processes; (“1.1.3.4.2.2Determine specific diagnoses & tests”, Segment 1.1.3.4.2 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p> <ul style="list-style-type: none"> ·Determining the root causes of specific resource performance degradations and violations; (“1.1.3.4.2.7Perform Degradation Root Cause Analysis”,” 1.1.3.4.2.8Confirm the solution analysis”, Segment 1.1.3.4.2 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx) ·Recording the results of the analysis and intermediate updates in the Resource Inventory for historical analysis and for use as required by other processes; (“1.1.3.4.6.1Log the Performance Degradation Report” “1.1.3.4.2.9Notify the T&M process”, Segment 1.1.3.4.2,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)and ·Undertaking specific detailed analysis (if the original requested came from Service Quality Management processes) to discover the root cause of service performance degradations that may be arising due to interactions between resource instances, without any specific resource instance having an unacceptable performance in its own right. (“1.1.3.4.2.7 Perform Degradation Root Cause”, Segment 1.1.3.4.2,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx , Note 2)
1.1.3.4.3 Control Resource Performance	Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx	<p>Brief Description</p> <p>Apply controls to resources in order to optimize the resource performance. (Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p> <p>Extended Description</p> <p>The objective of the Control Resource Performance processes is to apply controls to resource instances in order to optimize the resource performance. (Segment 1.1.3.4.3,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p> <p>The responsibilities of the processes include, but are not limited to:</p> <ul style="list-style-type: none"> ·Instantiating controls to attempt to restore resource instances to normal operation, at the request of Analyze Resource Performance processes. (From“1.1.3.4.3.1 Review the root cause and find the solution “to” 1.1.3.4.3.7 Create implementation plan”, Segment 1.1.3.4.3 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx) These controls may be based on established control plans,(Note 3) or the controls may be developed within the Control Resource Performance processes depending on circumstances. (“1.1.3.4.5.1Receive request”) ·Instantiating controls to attempt to restore failed resource instances to normal operation, at the request of Resource Trouble Management or Service Quality Management processes.(From “1.1.3.4.3.7Create implementation plan” to “1.1.3.4.3.13Document results”, Segment

		<p>1.1.3.4.3 ,Section 7, Huawei_MS Network OM Process Design-Resource Performance Management Process- v0.13.docx)</p> <p>These controls may be based on established control plans, (Note 3) or the controls may be developed within the Control Resource Performance process depending on circumstances. (Segment 1.1.3.4.3 ,Section 7, Huawei_MS Network OM Process Design-Resource Performance Management Process- v0.13.docx)</p>
1.1.3.4.4 Report Resource Performance	Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx	<p>Brief Description</p> <p>Monitor the status of resource performance degradation reports, provide notifications of any changes and provide management reports. (Section 7, Huawei_MS Network OM Process Design-Resource Performance Management Process- v0.13.docx)</p> <p>Extended Description</p> <p>The objective of the Report Resource Performance processes is to monitor the status of resource performance degradation reports, provide notifications of any changes and provide management reports. (Segment 1.1.3.4.4,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p> <p>These processes are responsible for continuously monitoring the status of resource performance degradation reports and managing notifications to other processes in the RM&O and other layers, and to other parties registered to receive notifications of any status changes. Notification lists are managed and maintained by the Enable Resource Performance Management processes. (“1.1.3.4.4.1Monitor Status of Resource Performance Degradation Report” ;“1.1.3.4.4.2Distribute Notifications” ,Segment 1.1.3.4.4 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p> <p>These processes record, analyze and assess the resource performance degradation report status changes to provide management reports and any specialized summaries of the efficiency and effectiveness of the overall Resource Performance Management process. These specialized summaries could be specific reports required by specific audiences. (“1.1.3.4.4.3Monitor report generation schedule”, from “1.1.3.4.4.4Receive Ad-hoc Report Request” to “1.1.3.4.4.9 Notify and deliver report to requestor” ,Segment 1.1.3.4.4, ,Section 7, Huawei_MS Network OM Process Design-Resource Performance Management Process- v0.13.docx)</p>
1.1.3.4.5 Create Resource Performance Degradation	Huawei_MS Network OM Process Design- Resource Performance Management	<p>Brief Description</p> <p>Create a new resource performance degradation report. (Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p>

Report	Process- v0.13.docx	<p>Extended Description</p> <p>The objective of the Create Resource Performance Degradation Report process is to create a new resource performance degradation report, modify existing resource performance degradation reports, and request cancellation of existing resource performance degradation reports. (Segment 1.1.3.4.5,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p> <p>A new resource performance degradation report may be created as a result of specific resource performance notifications undertaken by the Monitor Resource Performance processes, or at the request of analysis undertaken by other RM&O, SM&O or S/PRM processes which detect that some form of deterioration or failure has occurred requires an assessment of the specific resource performance. (“1.1.3.4.5.1Receive request”, Segment 1.1.3.4.5 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p> <p>If the resource performance degradation report is created as a result of a notification or request from processes other than Monitor Resource Performance processes, the Create Resource Performance Degradation Report processes are responsible for converting the received information into a form suitable for the Resource Performance Management processes, and for requesting additional information if required. (“1.1.3.4.5.2 Validate data format”, “1.1.3.4.5.3Validate data integrity”, “1.1.3.4.5.4Check for data accuracy”, “1.1.3.4.5.6Associate to existing Report, 1.1.3.4.5.7Enrich with additional information”, “1.1.3.4.5.8Create New Degradation Report”,from” 1.1.3.4.5.9”to “1.1.3.4.5.11”,Segment 1.1.3.4.5 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p>
1.1.3.4.6 Track and Manage Resource Performance	Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx	<p>Brief Description</p> <p>Ensure testing, repair and restoration activities are assigned, coordinated and tracked efficiently, and that escalation is invoked as required for any open resource performance degradation reports in jeopardy. (Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p> <p>Extended Description</p> <p>The objective of the Track & Manage Resource Performance Resolution processes is to efficiently assign, coordinate and track specific resource performance analysis and control activities, and escalate any open resource performance degradation reports in jeopardy. (Segment 1.1.3.4.6,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p>

Responsibilities of these processes include, but are not limited to:

- Adding additional information to an open resource performance degradation report based on the first-in and on-going analysis; (“1.1.3.4.6.1 Log the Performance Degradation Report” ,Segment 1.1.3.4.6 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)

- Scheduling, assigning and coordinating analysis and specific resource performance restoration activities and/or repair activities delegated to other processes; (From “1.1.3.4.6.3Analyze for assignment” to” 1.1.3.4.6.11Engage external 3rd party”, Segment 1.1.3.4.6 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)

- Generating the respective S/P problem report creation request(s) to Initiate S/P Problem Report processes based on specific resource performance degradation reports where analysis the root cause is related to S/P products;(Note 4)

- Modifying information in an existing resource performance degradation report based on assignments;

- Modifying the resource performance degradation report status; (“1.1.3.4.6.2Update the status of Performance Degradation Report”, Segment 1.1.3.4.6 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)

- Canceling a resource performance degradation report when the specific request was related to a false resource failure event; (Note 5)and

- Monitoring the jeopardy status of open resource performance degradation reports, and escalating resource performance degradation reports as necessary.

(“1.1.3.4.6.3 Analyze for assignment”, “1.1.3.4.6.6Identify target party”, Segment 1.1.3.4.6 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)

These processes will co-ordinate all the actions necessary in order to guarantee that all tasks are finished at the appropriate time and in the appropriate sequence.

(From “1.1.3.4.6.3Analyze for assignment” to” 1.1.3.4.6.11Engage external 3rd party”, Segment 1.1.3.4.6 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)

The Track & Manage Resource Performance Resolution processes will also inform the Close Resource Performance Degradation Report processes by modifying the resource performance degradation report status to cleared when the specific resource performance issues have

		<p>been resolved. (“1.1.3.4.6.2Update the status of Performance Degradation Report”, “1.1.3.4.7.1 Monitor Status of Resource Performance Degradation Report”, Segment 1.1.3.4.6 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p>
<p>1.1.3.4.7 Close Resource Performance Degradation Report</p>	<p>Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx</p>	<p>Brief Description</p> <p>Close a resource performance degradation report when the resource performance has been resolved. (Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p> <p>Extended Description</p> <p>The objective of the Close Resource Performance Degradation Report processes is to close a resource performance degradation report when the resource performance has been resolved. (Segment 1.1.3.4.7,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p> <p>These processes monitor the status of all open resource performance degradation reports, and recognize that a resource performance degradation report is ready to be closed when the status is changed to cleared. (from “1.1.3.4.7.1Monitor Status of Resource Performance Degradation Report”,“1.1.3.4.7.2Review tasks completion”,“1.1.3.4.7.3Calculate completion time”,“1.1.3.4.7.4Close Performance Degradation Report” to “1.1.3.4.7.7Notify T&M process”, Segment 1.1.3.4.7 ,Section 7, Huawei_MS Network OM Process Design- Resource Performance Management Process- v0.13.docx)</p>

Works Cited

Note 1: These tasks are performed in another Level 3 process: 1.1.3.4.6 Track & Manage Resource Performance Resolution, and therefore is not included in the assessment of this process.

Note 2: This sentence describes another process in service layer and therefore is not included in the assessment of this process.

Note 3: Commentary that is not part of the task(s) being performed by this process.

Note 4: This sentence describes another process (Resource Trouble Management), Assumed that when identify S/P related problem in resource performance degradation, request to initiate

S/P Problem Report processes based on specific resource performance degradation reports where analysis the root cause is related to S/P products.

Note 5: Commentary that is not part of the task(s) being performed by this process.

1.1.3.5 Resource Data Collection & Distribution

eTOM Process Element	Huawei Mapping	
1.1.3.5 Resource Data Collection & Distribution	Alignment	Mapping Content
1.1.3.5.1 Collect Management Information & Data	Huawei_MS Network OM Process Design - Resource Data Collection & Distribution _v.0.10.docx	<p>Brief Description</p> <p>Collection of management information and data records from resource and service instances and other enterprise processes. (Segment 1.1.3.5.1 Collect Management Information & Data ,Section 7,Huawei_MS Network OM Process Design -Resource Data Collection & Distribution _v.0.10.docx)</p> <p>Extended Description</p> <p>The Collect Management Information & Data processes are responsible for collection of management information and data records from resource and service instances and other enterprise processes. These processes interact with the resource and service instances to intercept and/or collect usage(Note 1), network and information technology events and, performance and other management information for distribution to other processes within the enterprise, and with enterprise processes to accept command, query and other management information for distribution to resource and service instances.(From “1.1.3.5.1.1Initiate data collection” to “1.1.3.5.1.7Log information and data”, Segment 1.1.3.5.1,Section 7,Huawei_MS Network OM Process Design -Resource Data Collection & Distribution _v.0.10.docx)</p>
1.1.3.5.2 Process Management Information & Data	Huawei_MS Network OM Process Design - Resource Data Collection & Distribution _v.0.10.docx	<p>Brief Description</p> <p>Process the management information and/or data into a form suitable for the intended recipient processes, resource instances or service instances. (Segment 1.1.3.5.2 Process Management Information & Data ,Section 7,Huawei_MS Network OM Process Design -Resource Data Collection & Distribution _v.0.10.docx)</p> <p>Extended Description</p> <p>The Process Management Information & Data processes are responsible for processing the management information and/or data</p>

		<p>into a form suitable for the intended recipient processes, resource instances or service instances. (Segment 1.1.3.5.2 Process Management Information & Data ,Section 7,Huawei_MS Network OM Process Design -Resource Data Collection & Distribution _v.0.10.docx)</p> <p>The responsibilities of this process include, but are not limited to:</p> <ul style="list-style-type: none"> Identifying the intended recipient processes, resource instances or service instances to determine the appropriate processing required: (“1.1.3.5.2.2Determine report & distribution requirements”, Segment 1.1.3.5.2, Section 7,Huawei_MS Network OM Process Design -Resource Data Collection & Distribution _v.0.10.docx) Filtering and/or low level correlation of the management information and/or data based on well-defined criteria; (“1.1.3.5.2.5Filter management information and data records “,Segment 1.1.3.5.2, Section 7,Huawei_MS Network OM Process Design -Resource Data Collection & Distribution _v.0.10.docx) Aggregating or disaggregating the management information and/or data to provide summarized versions; and (“1.1.3.5.2.7Aggregate management information and data records”, Segment 1.1.3.5.2, Section 7,Huawei_MS Network OM Process Design -Resource Data Collection & Distribution _v.0.10.docx) Formatting the management information and/or data into a form suitable for the intended recipient before distribution. (“1.1.3.5.2.8Format the management information and data records”, Segment 1.1.3.5.2, Section 7,Huawei_MS Network OM Process Design -Resource Data Collection & Distribution _v.0.10.docx)
<p>1.1.3.5.3 Distribute Management Information & Data</p>	<p>Huawei_MS Network OM Process Design - Resource Data Collection & Distribution _v.0.10.docx</p>	<p>Brief Description</p> <p>Distribute processed management information and/or data to resource instances, service instances or other processes within the enterprise for further analysis and/or reporting. (Segment 1.1.3.5.3 Distribute Management Information & Data ,Section 7,Huawei_MS Network OM Process Design -Resource Data Collection & Distribution _v.0.10.docx)</p> <p>Extended Description</p> <p>The Distribute Management Information & Data processes are responsible for distributing processed management information and/or data to resource instances, service instances or other processes within the enterprise for further analysis and/or reporting.</p> <p>(From “1.1.3.5.3.1Distribute management information and data records” to “1.1.3.5.3.7Generate report”,“1.1.3.5.3.8Notify requestor”, Section 7,Huawei_MS Network OM Process Design - Resource Data Collection & Distribution _v.0.10.docx)</p>

		<p>These processes also manage any orchestration required for distribution of the management information and/or data. Upon successful delivery these processes are responsible for informing the original sending process or instance that the information has been successfully distributed (if required), and for deleting the locally stored information from any local repositories. (From "1.1.3.5.3.1Distribute management information and data records" to "1.1.3.5.3.7Generate report", "1.1.3.5.3.8Notify requestor", Section 7, Huawei_MS Network OM Process Design -Resource Data Collection & Distribution _v.0.10.docx)</p>
<p>1.1.3.5.4 Audit Data Collection & Distribution</p>	<p>Huawei_MS Network OM Process Design - Resource Data Collection & Distribution _v.0.10.docx</p>	<p>Brief Description</p> <p>Audit the management information & data collection, processing and distribution activities in order to identify possible anomalies. (Segment 1.1.3.5.4 Audit Data Collection & Distribution, Section 7, Huawei_MS Network OM Process Design -Resource Data Collection & Distribution _v.0.10.docx)</p> <p>Extended Description</p> <p>The Audit Data Collection & Distribution processes are responsible for auditing the management information & data collection activities in order to identify possible anomalies such as loss of management information and/or data in the different collection, processing and distribution steps. ("1.1.3.5.4 .1Identify possible anomalies in collection", "1.1.3.5.4 .2Identify possible anomalies in processing", "1.1.3.5.4 .3Identify possible anomalies in distribution", "1.1.3.5.4 .4Check the audit result", Segment 1.1.3.5.4 ,Section 7, Huawei_MS Network OM Process Design -Resource Data Collection & Distribution _v.0.10.docx)</p>

Works Cited

Note 1: This sentence describes another process and therefore is not included in the assessment of this process.(the usage records' collection, mediation and distribution is in scope of 1.1.3.6 Resource Mediation & Reporting)

1.1.3.6 Resource Mediation & Reporting

eTOM Process Element	Huawei Mapping	
1.1.3.6 Resource Mediation & Reporting	Alignment	Mapping Content
1.1.3.6.1 Mediate Resource Usage Records	Huawei_MS Network OM Process Design-Resource Mediation & Reporting - v0.08.docx	<p>Brief Description</p> <p>Validate, normalize, convert and correlate usage records collected from the network. (Segment 1.1.3.6.1 Mediate Resource Usage Records ,Section 7, Huawei_MS Network OM Process Design-Resource Mediation & Reporting - v0.08.docx)</p> <p>Extended Description</p> <p>The purpose of the Mediate Usage Records processes is to validate, normalize, convert and correlate usage records collected from various pieces of equipment in the network. (From "1.1.3.6.1.1 Collect usage records" to "1.1.3.6.1.13 Enrich the usage records", Segment 1.1.3.6 ,Section 7, Huawei_MS Network OM Process Design-Resource Mediation & Reporting - v0.08.docx)</p>
1.1.3.6.2 Report Resource Usage Records	Huawei_MS Network OM Process Design-Resource Mediation & Reporting - v0.08.docx	<p>Brief Description</p> <p>Generate reports on resource usage records based on requests from other processes. (Segment 1.1.3.6.2 Report Resource Usage Records ,Section 7, Huawei_MS Network OM Process Design-Resource Mediation & Reporting - v0.08.docx)</p> <p>Extended Description</p> <p>The purpose of the Report Resource Usage Records is to generate reports on usage records based on requests from other processes. These processes produce reports that may identify abnormalities, which may be caused by fraudulent activity or related to customer complaints or network problems.</p> <p>(From "1.1.3.6.2.1 Receive Ad-hoc Report Request", "1.1.3.6.2.2 Monitor report generation schedule" to "1.1.3.6.2.8 Distribute usage records", Segment 1.1.3.6.1 ,Section 7, Huawei_MS Network OM Process Design-Resource Mediation & Reporting - v0.08.docx)</p>

1.1.3.7 Workforce Management

eTOM Process Element	Huawei Mapping	
1.1.3.7 Resource Trouble Management	Alignment	Mapping Content
1.1.3.7.1 Manage Appointment Schedule	Section 7, Huawei_MS Network OM Process Design - 1.1.3.7 Workforce Management - V.1.0.doc	<p>Brief Description</p> <p>Manages the appointment schedule of assignable staff. (1.1.3.7.1.2 Review all the Activities & Availability of Staff to 1.1.3.7.1.5 Plan Appointment Schedule within Section 7, Huawei_MS Network OM Process Design - 1.1.3.7 Workforce Management - V.1.0.doc)</p> <p>Extended Description</p> <p>The responsibilities of the Manage Appointment Schedule processes include the ability to view the availability of appropriate assignable staff as well as being able to schedule an appointment.</p> <p>1.1.3.7.1.2 Review all the Activities & Availability of Staff</p> <p>Both the viewing and the scheduling may be based on availability of a collection of staff and not a specific person. Similarly, times could be windows of time (i.e. - AM or PM) or a specific time.</p> <p>1.1.3.7.1.3 Set Manage Appoint Schedule Time Window 1.1.3.7.1.4 Rreschedule The Planned Activities 1.1.3.7.1.5 Update the Planned Activities Schedule 1.1.3.7.1.2 Check availability of appropriate staff</p> <p>(Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)</p>
1.1.3.7.2 Assign Work Order	Section 7, Huawei_MS Network OM Process Design - 1.1.3.7 Workforce Management - V.1.0.doc	<p>Brief Description</p> <p>Assign Work Order processes are responsible for assigning manual activities to assignable staff within the enterprise and/or third parties.</p> <p>(1.1.3.7.2.2 Assign Resource to 1.1.3.7.2.5 Assign WO(s) within Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)</p> <p>Extended Description</p> <p>Responsibilities of these processes include, but are not limited to:</p>

		<p>Establishing and managing work assignment queues through which requests for work activities are received from eTOM processes;</p> <p>Making appropriate assignments, taking into consideration activity priority, associated SLAs, due date, required skills, and job location relative to other assignments made to the same assignable staff, etc. (Note 1)</p> <p>Allowing for bulk automated assignments of technicians for the entire day as well as automated or manual assignments throughout a work day based on priority work that might arise.</p> <p>(Activity “1.1.3.7.2.5 Assign WO(s)”, Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)</p> <p>Optimizing the assignment of manual activities to technicians selected according to skills, proximity to intervention site, technician availability, vehicles, equipment and special tools required to perform these activities; (Note 2)</p> <p>See more details in assign work order activity (1.1.3.7.2.2 Assign Resource to 1.1.3.7.2.5 Assign WO(s) within Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)</p> <p>Whenever necessary, relocating other previously scheduled activities which have float or even relocating work schedules, aiming at the increase of manpower availability;</p> <p>Rescheduling Needed?(decision box)</p> <p>(Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)</p> <p>Dispatching technicians and/or third parties to perform manual activities. (Note 3)</p>
<p>1.1.3.7.3 Track& Manage Work Order Schedule</p>	<p>Section 7, Huawei_MS Network OM Process Design - 1.1.3.7 Workforce Management - V.1.0.doc</p>	<p>Brief Description</p> <p>Track & Manage Work Order processes are responsible for monitoring the execution of assigned manual activities to employees and/or third parties, detecting potential problems with completing the work, and requesting Create & Assign Work Order to reallocate manual activities to solve the issue. (1.1.3.7.3.1 Update work order status to 1.1.3.7.3.7 Determine Next Task(s) to execute within Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)</p> <p>Extended Description</p> <p>Track & Manage Work Order processes are responsible for monitoring the execution of assigned manual activities</p>

	<p>to employees and/or third parties as well as detecting problems with how the various assignments are progressing, requesting Create & Assign Workforce to reallocate resources to work activities as needed. Responsibilities of these processes include, but are not limited to:</p> <p>Monitoring the execution of assigned activities, including the various states of dispatch, complete, suspend, cancel, etc. as well as requesting work reassignments to Create & Assign Work Order as required:</p> <p>1.1.3.7.3.1 Update work order status</p> <p>Establishing and managing fast-track and jeopardy re-assignment capabilities to allow for modification of work assignments as required to meet jeopardy or other high priority conditions:</p> <p>1.1.3.7.3.2 Issue escalation of jeopardy situation 1.1.3.7.3.3 Issue warning of nearing jeopardy</p> <p>Managing the registration and access control processes that enable processes to create, modify, update, delete and/or download scheduling and work assignment data to and from the workforce management system(s):</p> <p>1.1.3.7.3.1 Update work order status 1.1.3.7.3.5 Determine Revised Priority/Tasks</p> <p>(Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc; The schedule is created by 1.1.3.7.4.8 Plan Schedule. The registration and access control processes to the schedule is the security management process and not in current design.)</p> <p>Establishing and managing information transfer between the enterprise workforce management system(s) and those of external third parties (when the infrastructure is owned and operated by third parties):</p> <p>Ensuring workforce management system(s) accurately captures and records all assignment and work scheduling details, through use of automated or manual audits;</p> <p>Tracking and monitoring of the usage of, and access to, the workforce management system(s) and associated costs of the Workforce Management processes, and identifying any technical driven shortcomings of the workforce management system(s), and providing input to Resource Development & Management processes to rectify these issues.</p> <p>1.1.3.7.3.4 Determine Escalation Party 1.1.3.7.3.5 Determine Revised Priority/Tasks 1.1.3.7.3.6 Escalate to Resolve Open Issue 1.1.3.7.3.7 Determine Next Task(s) to execute</p> <p>(Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)</p>
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<p>1.1.3.7.4 Plan and Forecast Workforce</p>	<p>Section 7, Huawei_MS Network OM Process Design - 1.1.3.7 Workforce Management - V.1.0.doc</p>	<p>Brief Description</p> <p>Plan & Forecast Workforce processes are responsible for planning and forecasting of the workload of manual activities to be assigned to technicians within the enterprise and/or third parties. (1.1.3.7.4.1 Classify Different Manual Activities to 1.1.3.7.4.8 Plan Schedule within Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)</p> <p>Extended Description</p> <p>Responsibilities of these processes include, but are not limited to:</p> <p>Classifying different typologies of manual activities, matching them with technicians skills, determining criteria to define priorities, estimating durations and classifying different typologies of skills;</p> <p>Determining work activity time estimates for all known work activities, based on actual historic results or on forward estimates, to be used as a parameter for scheduling work rosters;</p> <p>1.1.3.7.4.1 Classify Different Manual Activities 1.1.3.7.4.2 Match Activities with 3rd Party Skills 1.1.3.7.4.3 Match Activities Internal Skills</p> <p>Forecasting the workload and respective assignable staffing requirements on a daily, weekly and longer period basis, from a workload history, considering special events (extraordinary activities), staff vacation considerations, and distributing the available workforce in order to best meet the estimated load;</p> <p>Making adjustments, whenever necessary, on the estimated load.</p> <p>1.1.3.7.4.4 Plan Manual Activities 1.1.3.7.4.5 Analyze Activity Time & Workload 1.1.3.7.4.6 Prepare Schedule for Planned Manual Activity 1.1.3.7.4.7 Forecast Schedule for Preventative Activity 1.1.3.7.4.8 Plan Schedule</p> <p>(Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)</p>
<p>1.1.3.7.5 Administer Workforce</p>	<p>Section 7, Huawei_MS Network OM Process Design - 1.1.3.7 Workforce Management - V.1.0.doc</p>	<p>Brief Description</p> <p>Perform the necessary activities to assure that the assignable workforce is efficiently utilized. (1.1.3.7.5.1 Review the reports for Workforce Management to 1.1.3.7.5.7 Prepare Payroll Summary of Field Staff within Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)</p> <p>Extended Description</p> <p>The Administer Workforce processes perform the</p>

		<p>necessary activities to assure that the assignable workforce is efficiently utilized, and is positioned to get the required work assigned and completed within the required time frame, Administer Workforce scope includes the following:</p> <p>Determination and management of turfs, and assignment of staff to these turfs. This also includes potential "borrowing" of staff from one turf to another. Management of job codes;</p> <p>1.1.3.7.5.1 Review the reports for Workforce Management</p> <p>1.1.3.7.5.5 Relocate the Field Staff if Necessary</p> <p>Also 1.1.3.7.5.2 through 1.1.3.7.5.4</p> <p>Establishing and managing staff lists, containing details about assignable staff such as location, skills, availability for assignment etc.;</p> <p>Establishing and managing recall capabilities to allow for out-of-hours staff recall in the event of unforeseen circumstances;</p> <p>1.1.3.7.5.2 Manage work Hours of the Staffs</p> <p>1.1.3.7.5.3 Maintain Field Staff List and Contact Details</p> <p>Administration of the appointment schedule, including the hours of operation of the schedule, number of appointments allowed within a certain block of time, etc. Consolidating of employee and/or third parties worked hours in a specific time frame basis (day, week, month) and providing this information to Financial Management process for generating the payroll and/or to S/P Settlement & Payments Management process for paying the third parties.</p> <p>1.1.3.7.5.6 Manage Job Codes</p> <p>1.1.3.7.5.7 Prepare Payroll Summary of Field Staff</p> <p>Also</p> <p>1.1.3.7.5.2 Manage work Hours of the Staffs and</p> <p>1.1.3.7.5.3 Maintain Field Staff List and Contact Details</p> <p>(Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)</p>
<p>1.1.3.7.6 Report Manage Workforce</p>	<p>Section 7, Huawei_MS Network OM Process Design - 1.1.3.7 Workforce Management - V.1.0.doc</p>	<p>Brief Description</p> <p>Report Workforce processes are responsible for monitoring the status of work orders, providing notifications of any changes and providing management reports.</p> <p>(1.1.3.7.6.1 Monitor Workforce Management Status within Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)</p> <p>Extended Description</p> <p>Responsibilities of these processes include, but are not</p>

		<p>limited to:</p> <p>Preparing the statistic data on quality, productivity and efficiency for the services performed by the involved employees and/or third parties;</p> <p>and Periodically recalculating the average time for performing the manual activities and the efficiency level for the employees and/or third parties .</p> <p>Reporting on the usage of, and access to, the workforce management system(s) and associated costs of the Manage Workforce processes.</p> <p>1.1.3.7.6.1 Monitor Workforce Management Status 1.1.3.7.6.3 Monitor report generation schedule 1.1.3.7.6.4 Receive Ad-hoc Report Request</p> <p>These processes are responsible for continuously monitoring the status of work orders and managing notifications to processes and other parties registered to receive notifications of any status changes;</p> <p>These processes record, analyze and assess the work order status changes to provide management reports and any specialized summaries of the efficiency and effectiveness of the overall Manage Workforce processes. These specialized summaries could be specific reports required by specific audiences.</p> <p>1.1.3.7.6.6 Identify information sources 1.1.3.7.6.7 Build report 1.1.3.7.6.8 Generate report</p> <p>(Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc. Also 1.1.3.7.6.1 Monitor Workforce Management Status and 1.1.3.7.6.2 Distribute Notifications)</p>
1.1.3.7.7 Close Work Order	Section 7, Huawei_MS Network OM Process Design - 1.1.3.7 Workforce Management - V.1.0.doc	<p>Brief Description</p> <p>Close a Work Order when the manual activities assigned to employees and/or third parties have been completed. (1.1.3.7.7.1 Review work order</p> <p>To 1.1.3.7.7.3 Close the work order within Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)</p> <p>Extended Description</p> <p>The objective of Close Work Order processes is to close a Work Order when the manual activities assigned to employees and/or third parties have been completed. These processes monitor the status of all open work orders, and recognize that a Work Order is ready to be closed when the status is changed to completed.</p> <p>1.1.3.7.7.1 Review work order 1.1.3.7.7.2 Analyze dependencies 1.1.3.7.7.3 Calculate overall completion time</p>

		1.1.3.7.7.4 Close the work order (Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)
1.1.3.7.8 Issue Work Order	Section 7, Huawei_MS Network OM Process Design - 1.1.3.7 Workforce Management - V.1.0.doc	<p>Brief Description Issues a correct and complete work order. (Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc; also 1.1.3.7.8.8 Create/Issue the WO)</p> <p>Extended Description The purpose of the Issue Work Order processes is to issue correct and complete work orders. The work orders may be required to complete pertinent manual work such as a fulfillment based resource order or an assurance trouble report.</p> <p>1.1.3.7.8.1 Validate field work request 1.1.3.7.8.2 Identify the Site 1.1.3.7.8.3 Identify Customer 1.1.3.7.8.4 Identify CI 1.1.3.7.8.8 Create/Issue the WO</p> <p>(Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)</p>

Note 1. This tasks support by the 1.1.3.7.5 Administer Workforce. (Activity “1.1.3.7.5.2 Manage work Hours of the Staffs” and “1.1.3.7.5.3 Maintain Field Staff List and Contact Details”, Segment 1.1.3.7.5, Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)

Note 2. This tasks support by the 1.1.3.7.5 Administer Workforce and 1.1.3.7.9 Execute Work Order (Activity “1.1.3.7.5.3 Maintain Field Staff List and Contact Details” to “1.1.3.7.5.5 Relocate the Field Staff if Necessary”, Activity “1.1.3.7.9.1 Get approval for special tools” to “1.1.3.7.9.4 Receive spare parts”, Segment 1.1.3.7.5 and 1.1.3.7.9, Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)

Note 3. The perform of the manual activities have been decomposed into detail and support by a new added process named 1.1.3.7.9 Execute Work Order. (Segment 1.1.3.7.9, Section 7, Huawei_MS Network OM Process Design - Workforce Management - V.1.0.doc)

Process Conformance

Assessed eTOM Conformance			
eTOM process element	Assessed Domain	Conformance Level	Comment
Within Level 1: 1.1.3 - Resource Management & Operations	Resource	1	Conformance described hereafter is relevant for seven L2 processes within the eTOM: 1.1.3.1 - RM&O Support & Readiness; 1.1.3.2 – Resource Provisioning; 1.1.3.3 - Resource Trouble Management; 1.1.3.4 - Resource Performance Management; 1.1.3.5 - Resource Data Collection & Distribution; 1.1.3.6 – Resource Mediation & Reporting; 1.1.3.7 – Workforce Management
Within Level 2: 1.1.3.1 - RM&O Support & Readiness	Resource	3	Six L3 eTOM processes have been assessed here for conformance, these are: 1.1.3.1.1 Enable Resource Provisioning, 1.1.3.1.2 Enable Resource Performance Management, 1.1.3.1.3 Support Resource Trouble Management, 1.1.3.1.4 Enable Resource Data Collection & Distribution, 1.1.3.1.5 Manage Resource Inventory, and 1.1.3.1.7 Manage Logistics. These 6 processes represent the entire set of support and readiness processes for the Resource Management & Operations domain within the eTOM. The use cases provided in this document and other referenced documents demonstrate conformance to the eTOM standard definition for the RM&O Support & Readiness with some minor deviations for the 1.1.3.1.7 Manage Logistics L3 process.
1.1.3.1.1 Enable Resource Provisioning	Resource	5	Conformant - When a request is sent to update the network, the resource infrastructure will be tracked and monitored. Furthermore, Resource instance currency refers indeed to the tracking and monitoring of information and interaction between resource instances (EL) and the NML as per the TMN model (ITU-T M.3400).
1.1.3.1.2 Enable Resource Performance Management	Resource	5	Conformant

Assessed eTOM Conformance			
eTOM process element	Assessed Domain	Conformance Level	Comment
1.1.3.1.3 Support Resource Trouble Management	Resource	5	Conformant
1.1.3.1.4 Enable Resource Data Collection & Distribution	Resource	5	Conformant
1.1.3.1.5 Manage Resource Inventory	Resource	5	Conformant
1.1.3.1.7 Manage Logistics	Resource	4	This L3 process does not provide the full support for tracking and monitoring or identifying any technical driven shortcomings. Also it displays a number of dependencies for support provided by other peer processes within the S/P domain.
Within Level 2: 1.1.3.2 – Resource Provisioning	Resource	3	<p>Eight L3 eTOM processes have been assessed here for conformance, these are: 1.1.3.2.1 Allocate & Install Resource, 1.1.3.2.2 Configure & Activate Resource, 1.1.3.2.3 Test Resource, 1.1.3.2.5 Track & Manage Resource Provisioning, 1.1.3.2.6 Report Resource Provisioning, 1.1.3.2.7 Close Resource Order, 1.1.3.2.8 Issue Resource Orders, and 1.1.3.2.9 Recover Resource.</p> <p>These 8 processes cover the entire lifecycle of the Resource Provisioning core process as defined in the eTOM with minor deviations in the following processes: 1.1.3.2.2 Configure & Activate Resource, 1.1.3.2.5 Track & Manage Resource Provisioning, and 1.1.3.2.8 Issue Resource Orders.</p>
1.1.3.2.1 Allocate & Install Resource	Resource	5	<p>Conformant</p> <p>Note: Portions of this L3 process are supported by other L3 processes but within Resource Provisioning, therefore these are not taken into account as minor deviations, but rather spanning through several L4 tasks along the process flow.</p>
1.1.3.2.2 Configure & Activate Resource	Resource	4	Part of the support to this process in this specific Huawei context is provided by a

Assessed eTOM Conformance			
eTOM process element	Assessed Domain	Conformance Level	Comment
			number of ITIL processes, namely: 1.3.3.6 ITIL Service Asset and Configuration Management process. The 1.1.3.2.1 Allocate & Install Resource process has an interface with 1.3.3.6 ITIL Service Asset and Configuration Management
1.1.3.2.3 Test Resource	Resource	5	Conformant
1.1.3.2.5 Track & Manage Resource Provisioning	Resource	4	Parts of the supporting capabilities for this process are supplied by separate processes.
1.1.3.2.6 Report Resource Provisioning	Resource	5	Conformant
1.1.3.2.7 Close Resource Order	Resource	5	Conformant
1.1.3.2.8 Issue Resource Orders	Resource	4	Parts of this process are supported by separate activities within other processes such as: 1.1.3.1.3 Support Resource Trouble Management and 1.1.3.1.2 Enable Resource Performance Management first. After analysis, the resource order arises by the 1.1.3.1.3 Support Resource Trouble Management and 1.1.3.1.2 Enable Resource Performance Management (See note 5 in previous pages).
1.1.3.2.9 Recover Resource	Resource	5	Conformant
Within Level 2: 1.1.3.3 - Resource Trouble Management	Resource	3	Seven L3 eTOM processes have been assessed here for conformance, these are: 1.1.3.3.1 - Survey & Analyze Resource Trouble; 1.1.3.3.2 - Localize Resource Trouble; 1.1.3.3.3 - Correct & Resolve Resource Trouble; 1.1.3.3.4 - Track & Manage Resource Trouble; 1.1.3.3.5 - Report Resource Trouble; 1.1.3.3.6 - Close Resource Trouble Report; and 1.1.3.3.7 - Create Resource Trouble Report. These 7 processes cover the entire lifecycle of the Resource Trouble. The use cases provided in this document and other referenced

Assessed eTOM Conformance			
eTOM process element	Assessed Domain	Conformance Level	Comment
			documents demonstrate conformance to the eTOM standard definition for Resource Trouble Management with some minor deviations for the 1.1.3.3.2 Localize Resource Trouble L3 process.
1.1.3.3.1 - Survey & Analyze Resource Trouble	Resource	5	Conformant
1.1.3.3.2 - Localize Resource Trouble	Resource	4	Routine testing is conducted in Preventive Maintenance and is part of RM&O Support and Readiness in the eTOM.
1.1.3.3.3 - Correct & Resolve Resource Trouble	Resource	5	Conformant
1.1.3.3.4 - Track & Manage Resource Trouble	Resource	5	Conformant
1.1.3.3.5 - Report Resource Trouble	Resource	5	Conformant
1.1.3.3.6 - Close Resource Trouble Report	Resource	5	Conformant
1.1.3.3.7 - Create Resource Trouble Report	Resource	5	Conformant
Within Level 2: 1.1.3.4 - Resource Performance Management	Resource	3	<p>Seven L3 eTOM processes have been assessed here for conformance, these are: 1.1.3.4.1 - Monitor Resource Performance, 1.1.3.4.2 - Analyze Resource Performance, 1.1.3.4.3 - Control Resource Performance, 1.1.3.4.4 - Report Resource Performance, 1.1.3.4.5 - Create Resource Performance Degradation Report, 1.1.3.4.6 - Track and Manage Resource Performance, and 1.1.3.4.7 - Close Resource Performance Degradation Report.</p> <p>These 7 processes cover the entire lifecycle of the Resource Performance. The use cases provided in this document and other</p>

Assessed eTOM Conformance			
eTOM process element	Assessed Domain	Conformance Level	Comment
			referenced documents demonstrate conformance to the eTOM standard definition for Resource Performance Management with some minor deviations for 1.1.3.4.1 Monitor Resource Performance, 1.1.3.4.2 Analyze Resource Performance, and 1.1.3.4.6 Track and Manage Resource Performance L3 processes.
1.1.3.4.1 - Monitor Resource Performance	Resource	4	Some of the tasks within this process are supported or performed in another Level 3 process: 1.1.3.4.6 Track & Manage Resource Performance Resolution
1.1.3.4.2 - Analyze Resource Performance	Resource	4	Some of the tasks within this process are supported or performed within another Level 2 process: in the Service domain.
1.1.3.4.3 - Control Resource Performance	Resource	5	Conformant
1.1.3.4.4 - Report Resource Performance	Resource	5	Conformant
1.1.3.4.5 - Create Resource Performance Degradation Report	Resource	5	Conformant
1.1.3.4.6 - Track and Manage Resource Performance	Resource	4	Some of the tasks within this process are supported or performed within the Resource Trouble Management process in the eTOM.
1.1.3.4.7 - Close Resource Performance Degradation Report	Resource	5	Conformant
Within Level 2: 1.1.3.5 - Resource Data Collection & Distribution	Resource	3	Four L3 eTOM processes have been assessed here for conformance, these are: 1.1.3.5.1 Collect Management Information & Data, 1.1.3.5.2 Process Management Information & Data, 1.1.3.5.3 Distribute Management Information & Data, 1.1.3.5.4 Audit Data Collection & Distribution.

Assessed eTOM Conformance			
eTOM process element	Assessed Domain	Conformance Level	Comment
			These 4 processes cover the entire lifecycle of the Resource Data Collection & Distribution core process. The use cases provided in this document and other referenced documents demonstrate conformance to the eTOM standard definition for Resource Data Collection & Distribution with no deviations found.
1.1.3.5.1 Collect Management Information & Data	Resource	5	Conformant
1.1.3.5.2 Process Management Information & Data	Resource	5	Conformant
1.1.3.5.3 Distribute Management Information & Data	Resource	5	Conformant
1.1.3.5.4 Audit Data Collection & Distribution	Resource	5	Conformant
Within Level 2: 1.1.3.6 – Resource Mediation & Reporting	Resource	3	Two L3 eTOM processes have been assessed here for conformance, these are: 1.1.3.6.1 Mediate Resource Usage Records, and 1.1.3.6.2 Report Resource Usage Records. These 2 processes cover the entire lifecycle of the Resource Mediation & Reporting core process as defined in the eTOM with no deviations.
1.1.3.6.1 Mediate Resource Usage Records	Resource	5	Conformant
1.1.3.6.2 Report Resource Usage Records	Resource	5	Conformant
Within Level 2: 1.1.3.7 – Workforce Management	Resource	3	Eight L3 eTOM processes have been assessed here for conformance, these are: 1.1.3.7.1 Manage Appointment Schedule; 1.1.3.7.2 Assign Work Order; 1.1.3.7.3 Track& Manage Work Order Schedule; 1.1.3.7.4 Plan

Assessed eTOM Conformance			
eTOM process element	Assessed Domain	Conformance Level	Comment
			and Forecast Workforce; 1.1.3.7.5 Administer Workforce; 1.1.3.7.6 Report Manage Workforce; 1.1.3.7.7 Close Work Order; and 1.1.3.7.8 Issue Work Order. These 8 processes cover the entire lifecycle of Workforce Management. The use cases provided in this document and other referenced documents demonstrate conformance to the eTOM standard definition for the Workforce Management core process with some minor deviations for the 1.1.3.7.2 Assign Work Order, 1.1.3.7.3 Track& Manage Work Order Schedule, and 1.1.3.7.6 Report Manage Workforce L3 processes.
1.1.3.7.1 Manage Appointment Schedule	Resource	5	Conformant
1.1.3.7.2 Assign Work Order	Resource	4	Some parts of the eTOM process description for this particular L3 process are supported by a combination of separate activities within 1.1.3.7.5 and 1.1.3.7.9 L3 processes (see notes 1, 2 and 3 in previous pages).
1.1.3.7.3 Track& Manage Work Order Schedule	Resource	4	Part of this process is supported by a number of activities within a separate process segment referenced in the 1.1.3.1.x series.
1.1.3.7.4 Plan and Forecast Workforce	Resource	5	Conformant
1.1.3.7.5 Administer Workforce	Resource	5	Conformant
1.1.3.7.6 Report Manage Workforce	Resource	4	The activities provided as evidence of support for this particular process, provide only partial coverage as they leave some gaps uncovered (see related comments next to the process descriptions).
1.1.3.7.7 Close Work Order	Resource	5	Conformant
1.1.3.7.8 Issue Work Order	Resource	5	Conformant