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Comverse ONE 3.7.7

Level 2 Process: 1.1.1.1 CRM – Support & Readiness, part 1

Version 1

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Comverse authors: David Policar

Self-Assessment Process Mapping Report

making **yOUr** network smarter

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About Comverse

Comverse is the world's leading provider of software and systems enabling value-added services for voice, messaging, mobile Internet and mobile advertising; converged billing and active customer management; and IP communications. Comverse's extensive customer base spans more than 125 countries and covers over 450 communication service providers serving more than two billion subscribers. The company's innovative product portfolio enables communication service providers to unleash the value of the network for their customers by making their networks smarter.

For more information on our products and services, visit our website at: www.comverse.com or contact us at: information@comverse.com

200 Quannapowitt Parkway Wakefield, MA 01880 USA

1 L2: 1.1.1.1 CRM Support & Readiness

CRM Support & Readiness processes ensure the support capability is in place to allow the CRM Fulfillment, Assurance and Billing processes to operate effectively.

1.1 L3: 1.1.1.1.10 Manage Customer Inventory

Establish, manage and administer the enterprise's customer inventory, as embodied in the Customer Inventory Database, and monitor and report on the usage and access to the customer inventory, and the quality of the data maintained in it.

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

The customer inventory maintains records of all customers, their interactions with the enterprise, any contracts established, and any other customer related- information, required to support CRM and other processes.

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

· Identifying the inventory-relevant information requirements to be captured for customers ;

· Identifying, establishing and maintaining customer inventory repository facilities;

· Establishing and managing the customer inventory management and information capture processes;

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

· Ensuring the customer inventory repository accurately captures and records all identified customer details, through use of automated or manual audits;

· Tracking and monitoring of the usage of, and access to, the customer inventory repository and associated costs, and reporting on the findings; and

· Identifying any technical driven shortcomings of the customer inventory repository, and providing input to Resource Development & Management processes to rectify these issues.

1.1.1 L4: 1.1.1.1.10.1 Identify Relevant Customer Inventory Information– Mapping Details

Process Identifier: 1.1.1.1.10.1

Process Context

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS
1.1.1.1.10.1 Identify Relevant Customer Inventory Information

Identifying the inventory-relevant information requirements to be captured for customers ; [AM]

Note: since this element has no other attributes defined, we are mapping to the Brief Description.

The process for identifying inventory-relevant information is two-fold:

- *Where possible, client-required Customer attributes are mapped to standard attributes of the core Comverse ONE Customer data model, in particular to Account attributes and Account hierarchy entities such as contacts, offers, bundles, addresses, payment profiles, etc. etc. etc. etc. as described in the* Comverse ONE user documentation*. See* **Error! Reference ource not found.** *and its children (***Error! Reference source not found.** *and* **Error! Reference source not found.***) for more information about Account creation. See* **Error! Reference source not found.** *for an overview of relevant information provided in the Comverse ONE API documentation.*
- *Where no such mapping is possible, client-required Customer attributes are mapped to extended attributes of the Comverse ONE Customer data model. See* **Error! Reference ource not found.** *and its children (***Error! Reference source not found.** *and* **Error! Reference source not found.***).*

Extended Description

Not used for this process element

Explanatory

Not used for this process element

Mandatory

Reserved for future use.

Optional

Not used for this process element

Interactions

> Not used for this process element

1.1.2 L4: 1.1.1.1.10.2 Maintain Customer Inventory facilities – Mapping Details

Process Identifier: 1.1.1.1.10.2

Process Context

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

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<p align="center">LEVEL 4 PROCESS MAPPING DETAILS
1.1.1.1.10.2 Maintain Customer Inventory Facilities</p>
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Identifying, establishing and maintaining customer inventory repository facilities;[AM]

Note: since this element has no other attributes defined, we are mapping to the Brief Description.

*The customer inventory repository facilities in Comverse ONE comprise the Customer/Dynamic database, other databases that support and extend that database (such as the Product Catalog DB which defines entities which can be assigned to Customer Accounts, or the CRM DB which manages leads and opportunities which can eventually be added to the customer inventory), and the Single API that exposes those databases in a single coherent data model. See **Error! Reference source not ound.** for more background on the Single API. These facilities are established and maintained as part of Comverse ONE installation, initial configuration, and system administration. Initial operations are typically performed by Comverse personnel, though subsequent maintenance is often performed by client personnel. Instructions for installing and maintaining these databases and APIs are documented in Comverse ONE user documentation, in particular the* <u>Release Description Document.</u>* See **Error! Reference source not found.** for more background about this document.*

Although the process involves many scripts and other automated tools, coordinating the entire installation, configuration, and maintenance is fundamentally a manual process.

Note that the same underlying unified databases and APIs support the entire Comverse ONE application and therefore all Comverse ONE supported process elements, not just the Customer Inventory process elements.

Extended Description

Not used for this process element

</td></tr>
</table>

Explanatory

Not used for this process element

Mandatory

Not used for this process element

Optional

Not used for this process element

Interactions

Not used for this process element

1.1.3 L4: 1.1.1.1.10.3 Manage Customer Inventory Capture – Mapping Details

Process Identifier: 1.1.1.1.10.3

Process Context

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS
1.1.1.1.10.3 Manage Customer Inventory Capture
Establishing and managing the customer inventory management and information capture processes; [AM]
Note: since this element has no other attributes defined, we are mapping to the Brief Description. *A major subset of the Comverse ONE GUIs and APIs are devoted to the capture and management of customer inventory – creating customer Accounts and Account hierarchy entities such as subscribers, offers, bundles, contracts, and so forth. The majority of these processes involve a combination of manual operations initiated or performed by CSRs or other service provider personnel, and automated operations instantiated by GUI and API code. Ctrl-Click on the following for details:* • **Error! Reference source not found.** • **Error! Reference source not found.**

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Extended Description

Not used for this process element

Explanatory

Not used for this process element

Mandatory

Not used for this process element

Optional

Not used for this process element

Interactions

Not used for this process element

1.1.4 L4: 1.1.1.1.10.4 Control Customer Inventory Access – Mapping Details

Process Identifier: 1.1.1.1.10.4

Process Context

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS
1.1.1.1.10.4 Control Customer Inventory Access
Managing the registration and access control processes that enable processes to create, modify, update, delete and/or download customer data to and from the customer inventory; [AM]

Note: since this element has no other attributes defined, we are mapping to the Brief Description.

As noted above, Comverse ONE is built around a common database and API that expose a unified data model, including but not limited to Customer inventory, and associated methods. Part of that common model is a Security Server that manages security policy and user authentication and authorization for all of Comverse ONE. See the following for more details:

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Extended Description

Not used for this process element

Explanatory

Not used for this process element

Mandatory

Not used for this process element

Optional

Not used for this process element

Interactions

Not used for this process element

1.1.5 L4: 1.1.1.1.10.5 Ensure Customer Inventory Data Quality – Mapping Details

Process Identifier: 1.1.1.1.10.5

Process Context

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS
1.1.1.1.10.5 Ensure Customer Inventory Data Quality
Ensuring the customer inventory repository accurately captures and records all identified customer details, through use of automated or manual audits. Monitoring and reporting on the quality of the data maintained in the inventory. The customer inventory maintains records of all customers, their interactions with the enterprise, any contracts established, and any other customer related-information, required to support CRM and other processes. [AM] *Note: since this element has no other attributes defined, we are mapping to the Brief Description.* *The Customer data model in which the Comverse ONE Customer Inventory resides is instantiated in an Oracle database system, which automatically maintains records of all customer accounts and all transactions against those accounts, of any sort.* *Each customer is represented within a Customer Database using a Customer Master File record, which also includes associated contact information and other details. Interactions with the customer are tracked through Orders; in some cases they are also tracked through Interactions stored in the Sales&Service Database. Contracts are represented as Items within Offers within Bundles attached to either the customer or to Services/Subscriptions attached to the customer. Other customer-related*

information such as additional Contacts, generated Invoices, received Payments, open and closed Balances, Payment Profiles, etc. etc. etc. are similarly maintained within the Customer Database (and in some cases also within the Sales&Service Database).

The records representing Customers, Orders, Interactions, Items, Offers, Bundles, Services/Subscriptions, Contacts, Invoices, Payments, Balances, Payment Profiles, and other customer-related entities are stored within corresponding tables in the Customer (and in some cases Sales&Service) Database. For example, each Customer Master File record is stored in the CMF table with a unique account_no, each Service/Subscription is stored in the SERVICES table with a unique subscr_no/subscr_no_resets combination, and so on and so forth. Associations among records are stored as relational database joins using these unique identifiers.

These records are exposed via a common API. For example, each record in the CMF table is exposed as an Account object in the API, which supports methods for searching, selecting, updating, disconnecting, and performing other customer-related operations. Each SERVICES record is similarly exposed as a Service object in the API, which includes a reference to the parent Account. And so on and so forth.

Although both the database and the API support various kinds of manual and automatic reporting as required, the integrity of the Customer Inventory is primarily maintained on an ongoing basis through database triggers and business logic within API objects, as well as additional business logic within the CRM processes, that either enforce or automatically create requisite relationships – for example, making sure that when a Customer Account is created or modified, the child objects and key attributes on which downstream processes depend are properly set, and marking the Account in error (and thus refusing to allow it into the Customer Inventory) otherwise. There are therefore no specific processes for ensuring data quality; ensuring data quality is an ongoing distributed process implemented as part of the validation steps performed in all the other Customer Inventory processes.

Extended Description

Not used for this process element

Explanatory

Not used for this process element

Mandatory

Not used for this process element

Optional

> Not used for this process element
>
> **Interactions**
>
> Not used for this process element

1.1.6 L4: 1.1.1.1.10.6 Track Customer Inventory Usage– Mapping Details

Process Identifier: 1.1.1.1.10.6

Process Context

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS
1.1.1.1.10.6 Track Customer Inventory Usage
Tracking and monitoring of the usage of, and access to, the customer inventory repository and associated costs, and reporting on the findings [M]   *Note: since this element has no other attributes defined, we are mapping to the Brief Description.*   *The Customer data model in which the Comverse ONE Customer Inventory resides is instantiated in an Oracle database and exposed via a common API. In practice, the size of a deployment's customer base is the most significant source of variation among deployments in terms of customer inventory usage costs, and is consequently the most significant <u>variable</u> factor in determining costs. This includes costs associated with storage and backup of customer data, with processing associated transaction records, and with maintaining the requisite database connections. Other contributing factors such as the structural implications of system architecture, storage of associated configuration data, support for nonfunctional requirements such as disaster recovery or high availability, etc., are also significant but tend not to vary as widely between deployments.*   *The process for determining these costs for a deployment is a manual one, though supported by Comverse tools. The primary tool is a Sizing Profile (ctrl-click to see **Error! Reference source not ound.** and **Error! Reference source not found.**) developed for each deployment.*   *Non-variable or low-variability parameters are captured by formulas within the Profile, and as the variable parameters that contribute to the required sizing change, or as normal system administration processes determine that available space or available connections are becoming an*

operationally constraining factor, the Sizing Profile is adjusted to reflect the new parameters and sizing recommendations are revised accordingly.The Sizing Profile and similar tools also take these parameters into consideration to recommend staffing levels based on expected customer base, expected costs based on platform properties (e.g., high-availability platforms are typically significantly more expensive than other platforms, but are required for certain operations such as call authorization), and other related factors. These recommendations then contribute to a manual cost-determination process.

Extended Description

Not used for this process element

Explanatory

Not used for this process element

Mandatory

Not used for this process element

Optional

Not used for this process element

Interactions

Not used for this process element

1.1.7 L4: 1.1.1.1.10.7 Identify Customer Inventory Shortcomings – Mapping Details

Process Identifier: 1.1.1.1.10.7

Process Context

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS
1.1.1.1.10.7 Identify Customer Inventory Shortcomings

Identifying any technical driven shortcomings of the customer inventory repository, and providing input to Resource Development & Management processes to rectify these issues. [M]

Note: since this element has no other attributes defined, we are mapping to the Brief Description.

*Where possible, client-required Customer attributes are mapped to standard attributes of the core Comverse ONE Customer data model. However, where no such mapping is possible, client-required Customer attributes are mapped to extended attributes of the Comverse ONE Customer data model. See **Error! Reference source not found.** and children. This allows shortcomings in the core customer inventory to be identified and resolved as part of the initial configuration of Comverse ONE for a deployment.*

Note that extended data attributes can be added to the customer data model even after a deployment has gone live, if shortcomings are discovered later (or if the provider's needs change).

It's perhaps also worth noting that the single API can be extended through dynamic linkage with other data stores to supplement the information in the Comverse ONE customer repository, although the specifics of this process is highly dependent on the specifics of a service provider's needs and their existing information systems.

Other technical driven shortcomings related to throughput, latency, availability, security, auditability, usability, and other functional and non-functional considerations do not have a specialized handling process for customer inventory. They are instead handled as a subset of the more general process for raising and resolving defects against the Comverse ONE code base, or requesting and implementing features against it. This is because, since the customer inventory is implemented as a subset of the database and APIs, such defects tend not to be localized to customer inventory, nor do their solutions.

Extended Description

Not used for this process element

Explanatory

Not used for this process element

Mandatory

Not used for this process element

Optional

Not used for this process element

Interactions

Not used for this process element