CTI Integration Options

Depending upon the type of CRM and integration requirements, choose the option that suits customer business needs and also if customer's CRM allows the selected option:

1. ## Finesse Events Workflow - Screen popup

    Call an HTTP/S URL with GET/POST parameters. The CRM should have the capability to respond to such a URL call. The GET/POST parameters may contain any of the available CTI variables including those given by the caller on IVR or pulled via IVR back-office integration. For example, the HTTP URL should be similar to http://crm-server-ip/customer-profile?calling-number=xxxxxxx.

    The screen pop will happen for an active CRM web session. The agent will have to manually login to the CRM web application every time the session expires.
    The CRM screenpop can happen in a separate browser tab or opened in a Finesse Gadget iFrame via URL embedding.

    The agent handles all the call and agent state control activities on the Finesse agent interface.
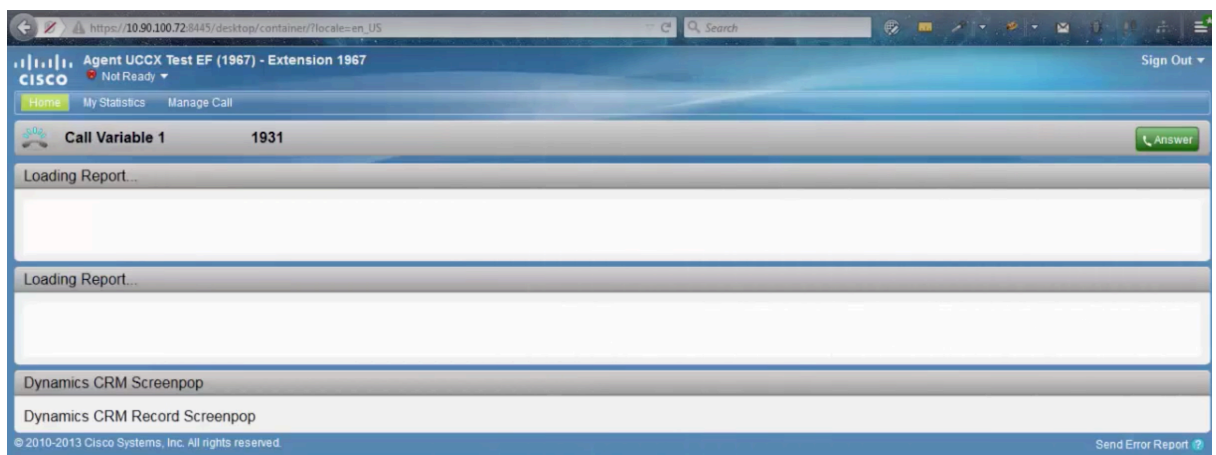

    Figure: Finesse Agent Desktop

    All the CRM related functions are performed on the CRM interface either in a separate browser tab or as a Finesse iFrame gadget.

Figure: MS Dynamics CRM Screenpop for Phone Call Activity

Pros:
- Less implementation cost
- Relatively quicker implementation

Cons:
- Automatic phone call activity in CRM and Click-2-Call may not work.
- The user experience is not elegant.
- In the iFrame gadget, there may be horizontal/vertical scrolling and some CRM functionalities for dialog popups/notifications behave unexpectedly.
- In the case of a separate browser tab, the agent will have to switch between Finesse and CRM screens for call handling.

2. CIM Customer Profile Gadget

CIM Customer Profile shows the caller's Customer profile as a Finesse gadget along with CIM Interaction History. Customer Profile gives a consistent user experience as a Finesse gadget regardless of any or no CRM at the backend. Using CIM APIs, Customer Profile can be 2-way synchronized with any CRM solution that allows API based contact synchronization. Using CIM Interaction History APIs, Phone call and other agent interactions handled through Finesse can also be pushed to CRM via CRM APIs.
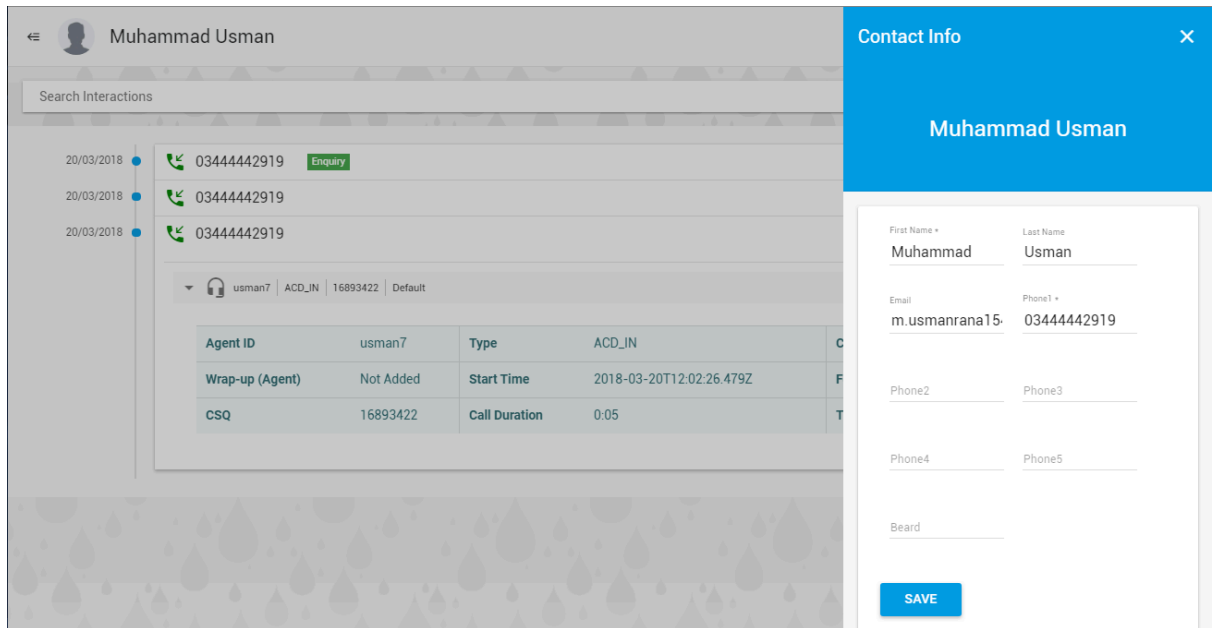
Figure: CIM Contacts / Interactions Finesse Gadget

Requires:
- CIM Agent based license and CIM Implementation Professional Service
- partner will have to do any CRM side development for exposing CRM APIs and consuming CIM APIs.

Pros:
- Configure the CRM attributes to be shown in the gadget
- Categorize customers in different lists for priority treatment
- All customer interactions are available on CIM Interaction History gadget as well as in CRM

Cons:
- For any other CRM specific functionalities such as opening a case, the agent will have to switch to CRM interface.

3. CRM-Embedded Connector

The CTI controls are embedded in the CRM solution and the agent handles all inbound and outbound interaction without leaving the CRM workspace. Currently, Expertflow has such connectors for Microsoft Dynamics, SAP CRM, SAP Hybris, Oracle Siebel, Oracle Service Cloud.
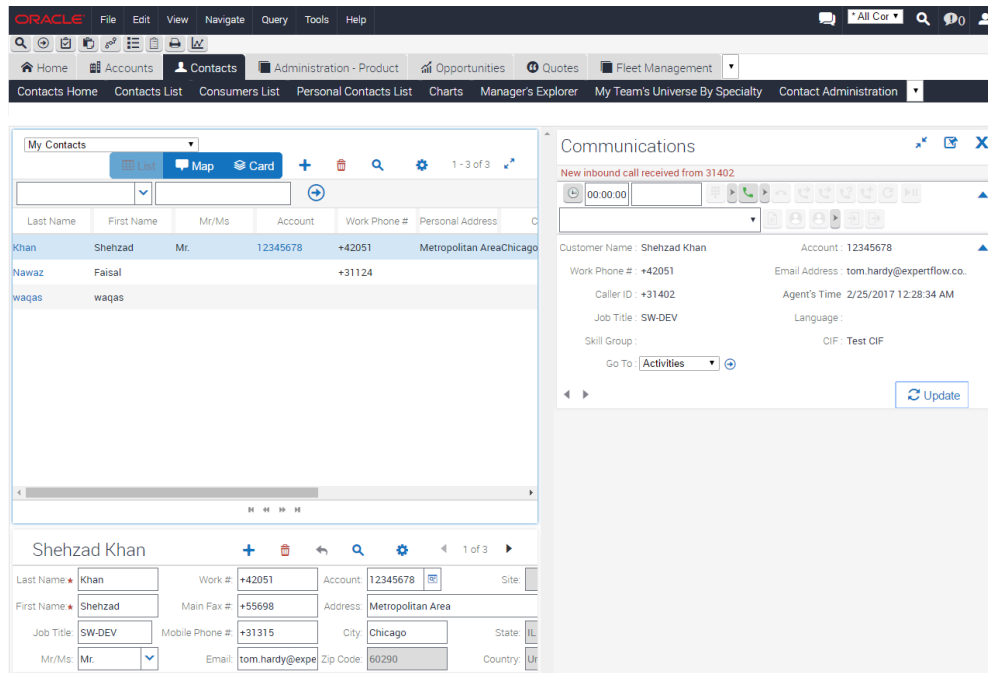
Figure: Oracle Siebel with embedded Connector

The above diagram shows an embedded connector interface of Oracle Siebel application. If the customer CRM solution is one from this list, the relevant out-of-the-box connector can be licensed.

For an embedded connector with any other CRM, proceed with Custom Embedded Connector.

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4. Web CTI Toolbar

A universal Web CTI Toolbar that can be embedded into any web-based CRM that allows embedding a Javascript based toolbar. The partner can implement the exposed javascript interface for CRM integration to do screen-pop, phone call activity on inbound/outbound interactions and click-2-call a CRM contact.

Requires:
- Web CTI Toolbar Solution Prerequisites
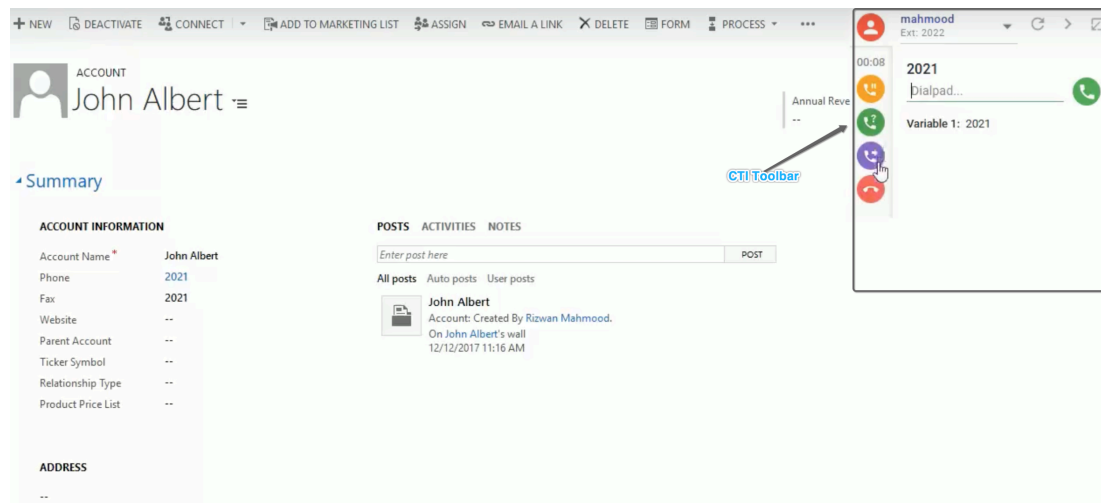
5. Custom Embedded Connector

If the customer CRM solution is not from this list and a Web CTI Toolbar is not feasible, partner can develop a custom CTI Connector on the Generic Connector interface. The Generic Connector exposes an SDK interface for 3rd party CRM solutions. The SDK allows both server-side and client-side integration. A server-side integration may be used for web-based applications and the client-side integration allows a CRM desktop application to be integrated.

The release includes an open-source client application written in .Net to speed up the embedded connector development.

It works with both Cisco UCCE and UCCX. For CCX, it supports cluster deployment and for CCE it supports redundant deployment.

The solution handles the CTI functionality for Inbound and Outbound calls for Contact center agents and supervisors. The solution translates and converges the Finesse API calls and XMPP events into an asynchronous messaging architecture.

Client SDKs are available for Java, .Net, and Javascript. To develop an embedded connector on Generic Connector interface refer to the Generic Connector Developer Guide. The Generic Connector inherently covers:

- Cisco Finesse Failover - any Cisco Finesse components
- Network Failover - cases between CRM and Cisco contact center
- High Availability support - both Active-Active and Active-Standby

Requires:

- A CRM developer to develop an embedded connector following the Generic Connector interface
- Generic Connector License

ExpertFlow can also provide its integration professional services for the custom connector development - estimated effort is 2-5 months depending upon the integration requirements and subject to the sandbox environment)

- Professional services for Custom Connector development

- A development lab environment with
  - Contact center lab with 5 CCX/CCE agents (ExpertFlow lab may also be used over the VPN)
  - CRM application with 5 CRM users
  - VPN access to the lab environment
  - A technical point of contact from the CRM team for any assistance in CRM side of integration requirements