CellTRAKR CRM

Overview

June 2011

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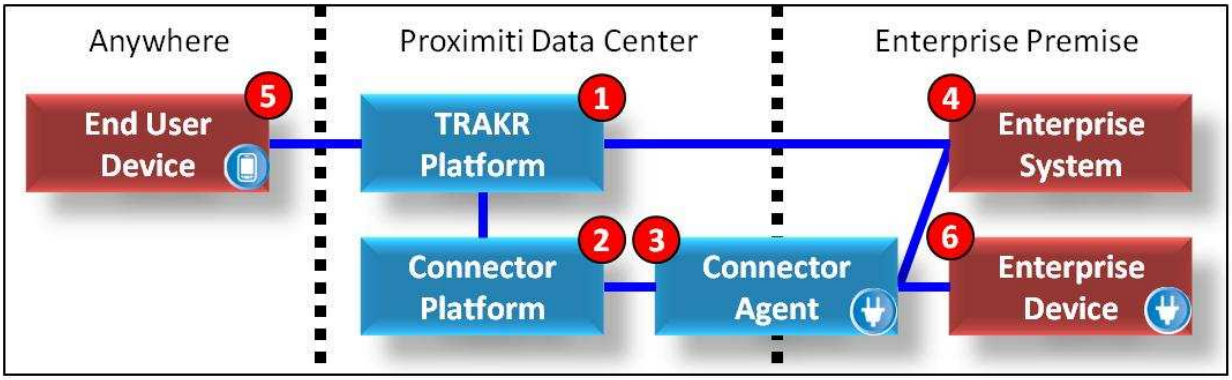
Introduction

CellTRAKR CRM is a service built on top of Proximiti's TRAKR Series Platform. Its primary mission is to make it faster and easier for CRM users to enter information into their CRM system. A secondary mission is to provide easy and fast remote access to a subset of CRM information that is most often needed remotely.

In order to understand CellTRAKR CRM and how it works, it is necessary to have some understanding of the underlying platform. Additionally, there are some differences between implementations associated with different CRM system.. Finally, both the the TRAKR platform and the CMR application will continue to grow and evolve. All these topics are covered in this whitepaper.

The TRAKR Platform

The diagram below provides a very high level overview of CellTRAKR and its relationship to enterprise assets.

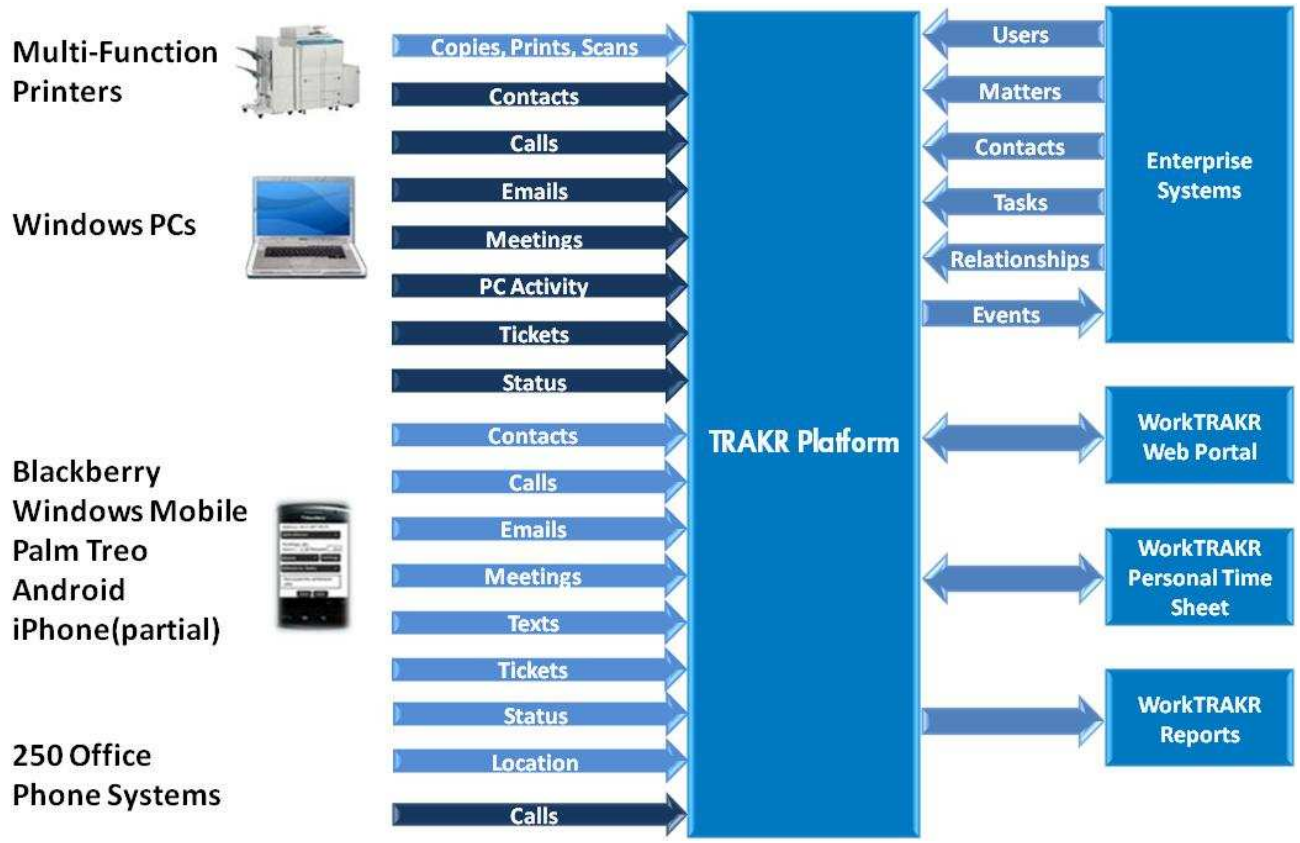


Here is a brief description of each major component.

1. The TRAKR platform primarily operates as a hosted service running in Proximiti's data center. This is where most of the application logic resides. It can be access via https, web services of via the Connector platform..
2. The TRAKR platform leverages another Proximiti platform, the Connector Network, which provides massive scalable secure, two-way connectivity. The Connector Network was built on peer-to-peer communication principles and can connect to hundreds of thousands or millions of endpoints. Endpoints can be as small as a cell phone or PC or as large as a datacenter. The central component of the Connector platform manages all endpoints and connects endpoints with each other or with Proximiti applications, such as the TRAKR platform.
3. The Connector Agent is software that can either run in the Proximiti data center or on the enterprise premise. It can support one or many endpoints. It queries Connector Central to understand the endpoint it is to serve and the role of each endpoint. It downloads plug-ins associated with each role it is to perform. It is designed to be installed in a few minutes and then run forever. It automatically checks for changes, updates itself and restarts when necessary. In one implementation, it is running in hundreds of medical and legal offices, supporting small practices. In another implementation, it is providing he interface to salesforce.com to support CellTRAKR CRM.
4. The TRAKR platform exchanges information with a variety of enterprise systems. I t can do this via the Connector Network or via a web-based import/export process.
5. The TRAKR platform also exchanges information with a variety of end user devices. In some cases, there are one of more embedded TRAKR application on these devices and, in other cases, it is just straightforward web access.

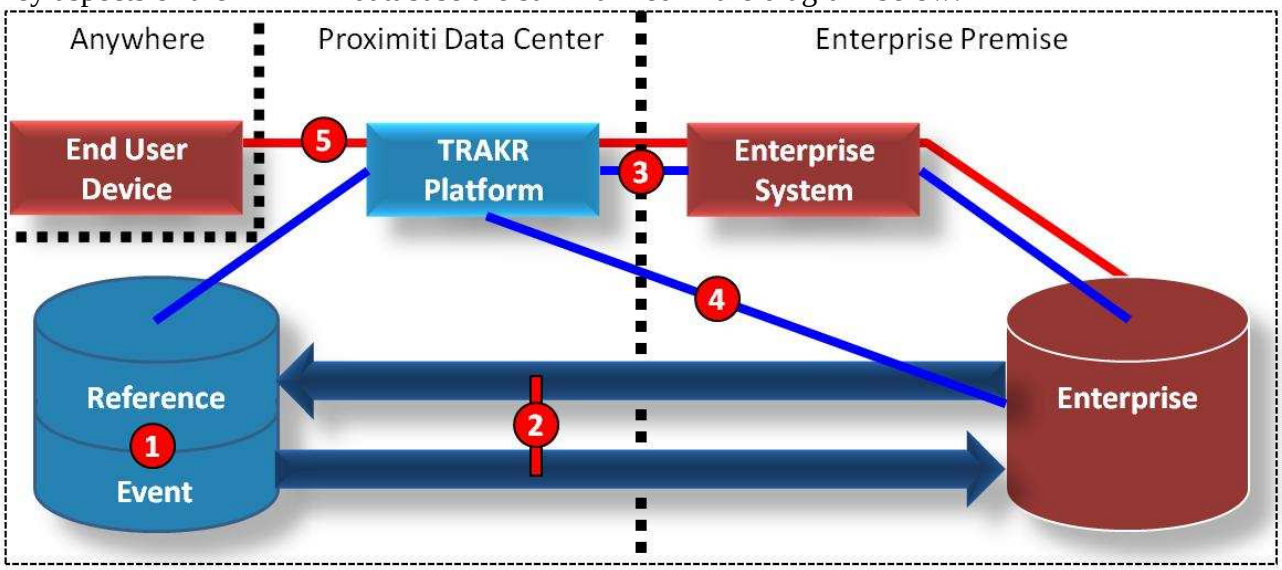
6. The TRAKR platform also gathers information from enterprise devices by using the Connector Network. In some cases, such as multi-function printer (MFP) integration, there is an embedded software component. In other cases, the Connector agent interacts with an extract file created by the enterprise device.

The picture below shows how this architecture has been used to create our WorkTRAKR product, which is currently the most comprehensive implementation on top of the TRAKR platform.



The TRAKR Database

Since TRAKR is a hosted service, it requires a multi-tenant approach, so the database is partitioned by "organization" and there is no information sharing across organizations. Some key aspects of the TRAKR database are summarized in the diagram below:



1. There are generally two types of data in the database. First, reference data is used to make TRAKR "smart". It provides the context that allows TRAKR to watch events and make a determination as to which events are of interest and which are not. It also helps pre-populate event information to make it easier for the user. It also allows TRAKR to support the information access restrictions supplied by the enterprise system. Second, it contains event information that represents some past, present or future item related to a user. The nature of the events varies substantially by TRAKR product.
2. In general, reference information flows for enterprise systems to TRAKR and event information flows in the opposite direction
3. For the most part, data exchange is accomplished by program-to-program interaction. This is viewed as he most preferable method since it let's both applications enforce their respective security model
4. In some cases, for efficiency reasons, we have put a connector agent on site and directly accessed an enterprise database. So far, this has been done on a read only basis and we strongly prefer to not directly update any enterprise database.
5. The secondary mission of TRAKR, in some cases, is to provide a user with remote access to enterprise data. In such cases, the information requested is typically more than the reference data available in the TRAKR database. In that case, we prefer to access the enterprise data in real time and to not store such data in the TRAKR database, instead sending it directly to the end user.

The TRAKR Product Line

The TRAKR product line includes both business and consumer products:

Segment	Product	Description
Business	WorkTRAKR	Supports lawyers and other professionals who bill for their time. Tracks cell phone, PC, office phone calls and MFP activity.
	CellTRAKR	Provides location tracking, driver safety, expense and security management features.
	CellTRAKR CRM	Assists users in submitting timely and accurate updates to their enterprise CRM system and may also use all general CellTRAKR features.
Consumer	CellTRAKR Family	Provides location tracking, driver safety, prohibited activity and prohibited hours of use management, expense and security management features.
	CellTRAKR FREE	Provides driver safety features only

Supported Cell Phones

Smartphones and tablets have varying capabilities and also have different philosophies on what 3rd party applications are allowed to do. Proximiti's policy is to live within these constraints and not attempt to "compromise the security and integrity of the cell phone to meet our needs. We are active participants in all cell phone developer communicates. In cases where the smart phone's capabilities fall short of what we need for TRAKR, we have requested changes to provide the needed capabilities and encourage others to do the same. At this point in time, we can generally categorize cell phone operating systems as being "friendly' or "unfriendly" to TRAKR needs:

Friendly	Unfriendly
Android Blackberry Windows Mobile 5/6	Apple Windows 7 Palm Web OS

Some of unfriendly versions are due to their newness and we expect them to become friendlier as they mature. Others, such as Apple, appear to have adopted "unfriendliness" as a strategy by setting very severe limitations as to what is acceptable for a 3rd party application to do. In our case, they affect TRAKR by severely limiting an application's ability to operate in the background and also by limiting access to any communication activity (phone, text message and email) and contacts. There are thousands of developers who have lobbied Apple to change this and more than a few have of them have built iPhone applications that only work if you "jailbreak"

The following chart provide a high level overview of what is allowed by phone type and what the impact is on that phone's ability to support TRAKR products.

Phone Type	Android 2.1 +	Blackberry	Windows Mobile 5/6	Windows Mobile 7	iPhone	Palm Web OS
Allows background operation						
Allows phone information access						
Automatically track location						
Stop risky driving behaviors						
Discover sexting and cyber bullying						
Stop use during prohibited hours						
Discover prohibited use						
Examine Every Activity						
Manage your cell phone budget						
WorkTRAKR						
CellTRAKR Business						
CellTRAKR CRM						
CellTRAKR Family						
CellTRAKR FREE						
Overall						

This is subject to change and we regularly monitor these phones to ensure we keep abreast of the latest status.

CellTRAKR CRM Overview

Although the terms vary, the majority of the CellTRAKR CRM functionality is focused on making the creation and entry into CRM of two types of events as quick and easy as possible

- Task/Activity – Something to be executed by a single person by a given due date / time.
- Appointment / Meeting – Something to be executed by one or more people during a given period of time defined by a start date / time and a stop date / time.

Part of the process of creating these involves linking these events to a variety of CRM entities that are key to the organization and use of the CRM system. Such entities include concepts like accounts, leads, proposal, orders, contracts, contacts, etc.

CellTRAKR CRM was a big step forward for the TRAKR platform in many ways. Previously, the TRAKR platform was focused on documenting events that had already happened and the user that reported or created the event was always the event's owner. In CRM, there may be a need to document multiple related events that have occurred, are occurring or will occur in the future. The owner may or may not be the event creator. These changes were addressed in a comprehensive fashion to create a "purpose built" CRM version of CellTRAKR rather than superficially changing WorkTRAKR.

Another big change was creating the ability to recognize and deal with many different entity types and some ambiguity as to the use of an entity. For example, some entities could be considered to be "Who's" and some can be considered to be "What's" and some can be both. There was also significant variation between salesforce.com and Microsoft Dynamics CRM, requiring a very flexible framework. As a result, we are well positioned as these two packages change over time and also well positioned to integrate with other CRM offerings should the business case warrant it.

CellTRAKR CRM for Microsoft Dynamics CRM

This section is not intended to be a functions and features discussion since that can be found elsewhere. Instead, it will be a discussion of some of the technical aspects of CellTRAKR CRM for Microsoft Dynamics CRM that will be of interest to our business partners.

Versions and Deployment Options

We did our initial development on version 4 and are now working on version 11. We expect to complete support for Version 11 by July 30, 2011.

Our initial development also used an internet facing deployment. (IFD). As part of supporting version 11, we are also adding support for On Demand (Microsoft hosted) and, if we get interest from our business partners, we will work with them to support the partner hosted option. We can support a premise installation upon request. This will require that our Connector agent reside at the premise.

Security Approach

In order to implement CellTRAKR CRM for Microsoft Dynamics, we need administrator access so we can understand and access the users, the security approach and the all the key entities that will be needed to populate the CellTRAKR CRM reference data. Once this is done, the administrator can select any subset of Microsoft Dynamics CRM users to become CellTRAKR CRM users and send them get started emails. As each user enters their Microsoft credentials, we determine what information they can access and mark the CellTRAKR reference data appropriately. In this way, we can enforce/respect the Microsoft security model without trying to replicate it.

Update Frequency

Regarding update frequency, reference data and events are treated differently. The CellTRAKR reference information, once initialized, is subsequently automatically maintained via periodic access to Microsoft Dynamics CRM using our Connector technology. The timing and frequency of this access can be controlled by the administrator. In addition, both administrators and individual users can request immediate updates should the need arise. The timing on posting events is different. CellTRAKR will attempt to post events to CRM immediately upon receiving the request from the user.

Error Handling

We will occasionally attempt to submit an event that in some way violates Microsoft's validation and/or security rules. In this case, we send the submitting user an email describing the error encountered. We also place the transaction in an error state and make it, and the error message, available via the user's cell phone for editing and resubmission.

Roadmap

Moving forward, our development road will be heavily influenced by our business partners and customers. However, we already have some development items that are on our roadmap:

- Improved support for appointments, including but not limited to attendee identification and recurring appointments
- Real time access / update to appointment and tasks
- Push notification options to let the user be aware of new tasks, appointments or other entities that have been assigned or otherwise linked to them
- Support for version 11's custom entities – We have the vast majority of this complete and are looking for a business partner to work with to finalize the details.
- Adding real time and/or periodic phone system integration, with screen pops
- Adding a PC client to review and update all captured events and possibly to capture PC activity a la WorkTRAKR

CellTRAKR CRM of Salesforce.com

Coming Soon