

TimeLink **Synapps**

White Paper

March 2008



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Overview

Today's dynamic business landscape, which traditionally has been perceived as an organizational cost center (representing up to 80% of a business' expenses in many industries), has transformed into a strategic asset delivering a significant and sustainable competitive advantage for an organization.

Synapps, TimeLink's Workforce Integration Platform, was developed to help organizations unlock the potential of this asset by:

- Reducing costs through the automation of existing business processes.
- Delivering accurate and timely information across the enterprise through the elimination of error-prone manual data entry.
- Improving productivity levels and reducing turnover through the more efficient deployment of the workforce.
- Increasing the return on investment by leveraging the existing investments made in new technologies.



Workforce Integration Overview

Synapps enables a tighter coupling between your enterprise information and your workforce – ensuring that the right information is in the right place at the right time. It is a seamless data conduit that collects and delivers mission critical information across a broad array of data collection technologies such as badge-based devices, time clocks, touch screen kiosks, biometric devices, interactive voice response (IVR) and mobile/wireless solutions.

These data collection technologies represent an intuitive and cost-effective solution for integrating your workforce and your business systems. Your workforce can now interact with these systems through a familiar and easy-to-use interface (i.e. telephone, PDA or an ATM-style kiosk).

Synapps also supports a wide-range of common business integration scenarios such as time and labor data collection, shop floor data collection, field force automation, employee self-service information delivery and many others.

In determining a solution that is right for your organization, it is important to evaluate several factors:

Employee Population/ Work Environment

Employees paid on an hourly basis can use fixed data collection devices (time clocks) that can be easily deployed across the enterprise, while salaried employees may leverage existing PC or telephone access and utilize either a web-based or interactive voice response solution. Within many industries, there is also a growing need to enable field service employees with a mobile/wireless solution.

An organization's work environment may also play a role in determining the right technology fit. Many industries require NEMA-rated (National



Electrical Manufacturers Association) devices in order to accommodate a wet, dusty, or 'wash-down' work environment.

Cultural

Many companies have implemented biometric-based technologies in order to provide an added measure of accuracy in enforcing payroll rules and to eliminate "buddy punching." Others have elected to use badge-based solutions that can conform to an existing corporate badge technology standard.

Technology Infrastructure

An organization needs a solution platform that is flexible enough to accommodate a variety of integration scenarios across a wide range of requirements without the need for a proprietary infrastructure.

TimeLink delivers:

- A component based, object-oriented technology platform that is highly flexible and supports an open approach to business data collection and integration challenges – enabling certified interoperability with ERP solution such as SAP[®] and PeopleSoft[®].
- A single integration platform that can support a variety of integration scenarios and methodologies, uniformly and seamlessly across the enterprise.
- A field-tested and proven solution combined with experienced implementation teams to ensure a successful implementation.
- Ongoing and comprehensive solution support delivering a single point of contact for your entire solution.

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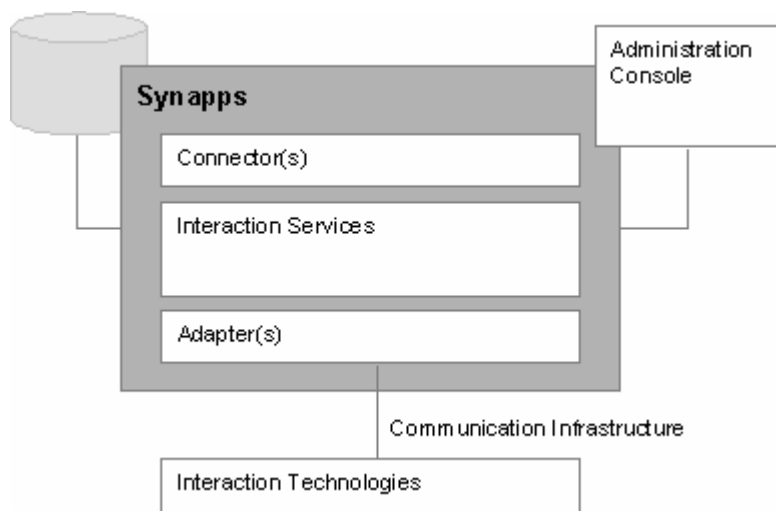
Functional Overview

The Synapps Workforce Integration Platform is a high availability, high throughput solution that is designed to handle the data collection and integration needs of the enterprise.

Synapps allows organizations to integrate a wide variety of data collection technologies seamlessly with their ERP or third party application. It provides a robust set of administration tools that are easy to use while also providing centralized control over the system.

Synapps is also very flexible. It has been developed around a modular, object-oriented framework that can scale to support the needs of even the largest global organizations. Due to its architecture,

Synapps can be quickly configured to communicate with almost any ERP, legacy or third party system – extracting critical validation information and integrating accurate and timely data from the ‘point of activity’. Synapps’ fault-tolerant and redundant design also helps to ensure that your mission critical data can always be retrieved. The communication architecture is extremely robust, enabling secure communication across a variety of protocols including: Ethernet, Radio Frequency, Modem, or Serial.



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Connectors

Connectors are pre-built bi-directional integration points that provide for the transfer of information between Synapps and an external data source or system. Synapps has connectors available for ERP systems such as PeopleSoft, Oracle, and SAP R/3. All of our connectors have been thoroughly tested and are field-proven. In addition, many of our connectors have undergone rigorous partner testing and certification¹ to ensure data consistency and technology compatibility.

Adaptors

Adaptors provide functionality that enables the configuration and management of various interaction technologies. Adaptors facilitate the logical grouping of devices and allow for sub-queries to be configured, in order to provide device-specific validation. Synapps has adaptors that include:

Badge-Based – This adaptor allows for the integration with TimeLink’s WorkPoint Series badge-based devices.

Biometrics – This adaptor allows Synapps to seamlessly communicate with TimeLink’s WorkPoint Finger Reader units.

Interactive Voice Response (IVR) – This adaptor is traditionally deployed on a separate server and enables Synapps to leverage the power of a comprehensive interactive voice response solution.

Mobile – This adaptor may also be deployed on a separate server and enables the synchronization of data across a

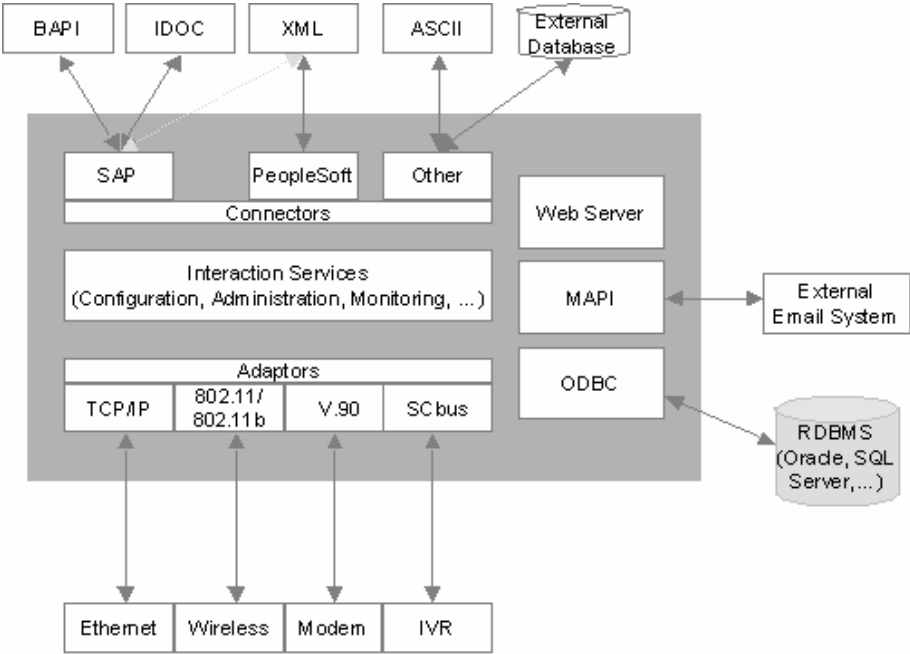
¹ TimeLink has multiple certified connectors available for SAP, OTL, and PeopleSoft.

variety of communication protocols to TimeLink mobile applications running on either the Windows CE/Pocket PC or Palm OS operating platforms.



Technical Overview

Synapps is a true technology platform that provides a fully integrated set of components that allow for a uniquely configurable solution to meet your workforce integration requirements. This approach allows Synapps to quickly adapt and integrate new technologies to ensure a truly ‘future-proof’ solution that can support your business needs now and well into the future - regardless of how technology may change.



In addition, Synapps has been developed with scalability in mind. It can be deployed on a single server or can be scaled and implemented across multiple servers providing for greater fault tolerance and higher throughput.



Synapps Product Highlights

Synapps is unique in its approach to data collection and integration. It is the most comprehensive solution available for implementing seamless interaction between your workforce and your information systems.

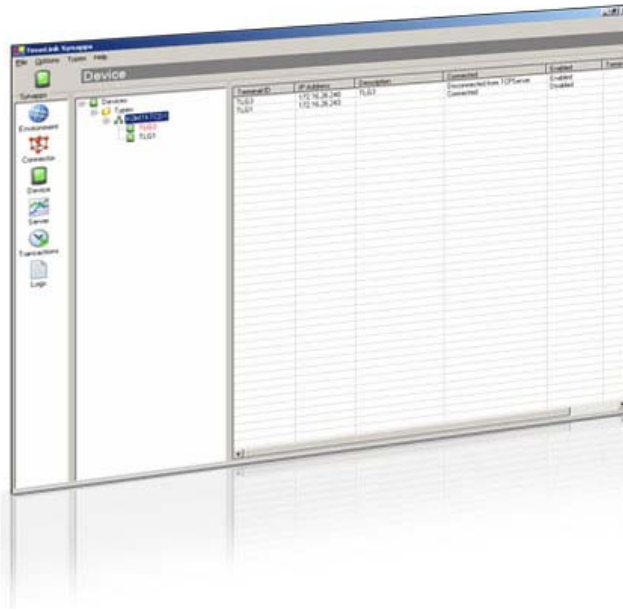
Synapps' key features include:

Diverse data collection technology options	Non-proprietary approach to software and data collection technologies. Synapps can be integrated with a wide range of data collection technologies – you are not restricted a single proprietary solution.
Certified and proven solution interfaces	Our solution integration has been certified by world-class organizations such as Oracle, PeopleSoft and SAP, ensuring information integrity and speeding integration.
Flexible communication protocol support	Native support for a variety of communication protocols, including: Ethernet, HTTP(S), RF (802.11/802.11b), Modem (V.90) and Serial.
Real-time integration	Synapps can exchange information with your enterprise systems in real-time.
Easy-to-use design studio	Powerful, yet easy to use administration and configuration user interfaces allow for the rapid implementation and management of client-specific integration scenarios.
Centralized solution performance monitoring	Viewable server integration and device activity via transaction and system performance monitoring tools.
Scalable	Synapps can be deployed across multiple servers to allow for increased throughput and availability, providing a fault tolerant environment.
Extensible	The modular design leverages COM (Component Object Model) technology to ensure that components can be easily added to support new scenarios, features and technologies.
Reliable/Proven	High throughput and high availability platform to ensure information delivery. Redundant, self-recovering architecture that minimizes downtime.



Flexible Design

Synapps provides a layer of abstraction between your ERP and your data collection technology. This provides us with tremendous flexibility in designing a solution that meets our clients' specific data collection and integration requirements. The configuration of the connectors and adaptors is done in Synapps without the need for programming.



Synapps also provides support for managing the run-time environment, such as:

- Comprehensive application audit and logging
- Real-time server performance monitoring
- Integrated email notification service

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Open Approach to Integration Technology

Synapps is capable of supporting real-world technical environments. Synapps can support:

- Multiple communication protocols, including Ethernet, Radio Frequency (802.11/802.11b), Modem, HTTP(S) and Token Ring
- Major ERP implementations, including SAP, Oracle and PeopleSoft and with a variety of integration scenarios such as: HR, Time and Labor, Supply Chain Management, Production Planning, Plant Maintenance and Access Control
- Broad array of interaction methods and data collection technologies, including Badge-based (Magnetic-Stripe, Barcode, Proximity, Smart Card), Biometrics, Touch Screen Kiosk, Interactive Voice Response (IVR), Mobile/Wireless (Palm OS, Windows CE/Pocket PC)



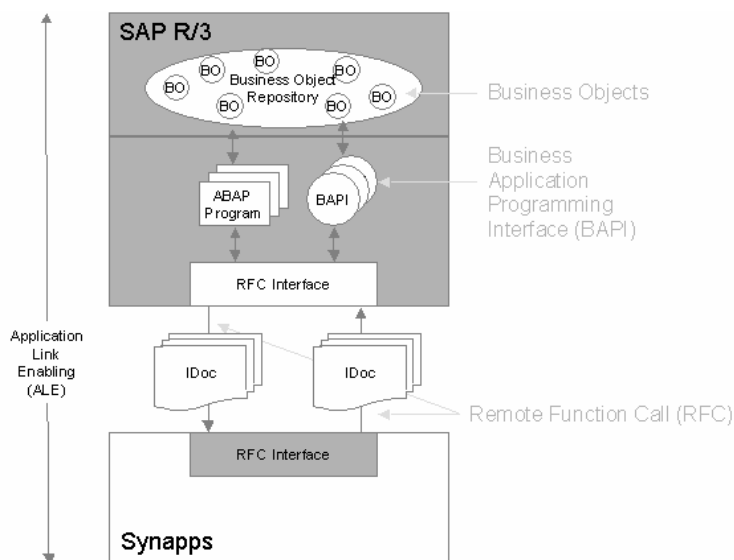
Synapps for SAP® R/3

Certified and field-proven pre-built connectors are available that greatly simplify integration with the SAP R/3 system. All of these connectors have been proven based on years of field deployment and, where available, these connectors have been rigorously tested and certified by SAP directly. Our experience and know-how ensure that these connectors will be able to deliver seamless and reliable integration.

Our SAP connectors use only SAP-recommended and approved integration technologies including ALE, BAPIs, RFCs and IDOCs.

Our SAP connectors include:

- Human Resources/Time Management (HR-PDC) Connector – collects and validates time, attendance and employee expenditure-related transactions, which are then sent to SAP Time Management. The interface is constructed using an asynchronous BAPI architecture.
- Cross-Application Time Sheet (CATS) Connector – collects and validates time events or time durations and uploads them to SAP CATS for review and approval.
- Production Planning (PP-PDC) Connector – allows master data, such as work centers or units of measure, as well as transaction data, such as operations, to be transferred from SAP R/3 PP to Synapps. It also allows validated confirmations to be forwarded to the PP module.
- Plant Maintenance (PM) Connector – collects and validates maintenance work order related transactions such as labor time and integrates this with SAP Plant Maintenance.



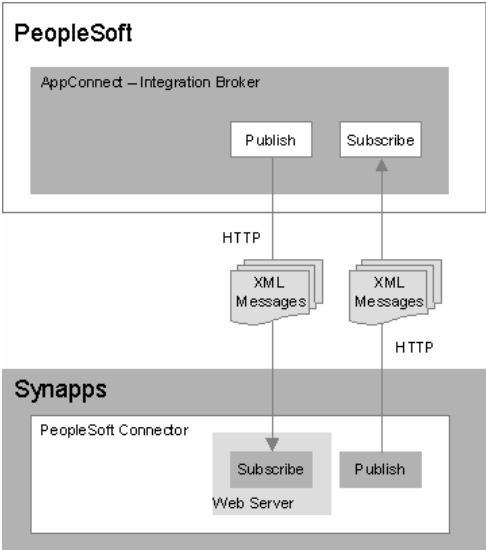
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Synapps for PeopleSoft®

Synapps' certified PeopleSoft Time and Labor connector has been designed and developed in partnership with PeopleSoft to ensure the highest level of interoperability. It leverages the power of PeopleSoft's Integration Broker technology and use only PeopleSoft-approved approaches and technologies, such as Publish/Subscribe architecture and XML to ensure reliable communication.

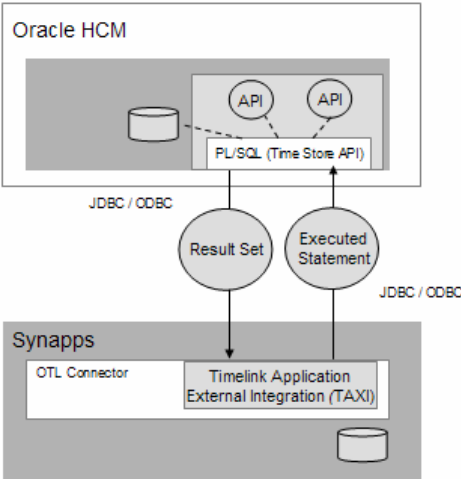
PeopleSoft Time and Labor Connector – extracts critical validation information for delivery to the appropriate interaction method. The connector also collects and validates time and attendance related transactions, which are then sent to PeopleSoft Time and Labor.



Synapps for Oracle®

TimeLink, an Oracle Certified Partner, offers seamless front-end data collection solutions to Oracle Time and Labor (OTL) customers. TimeLink's Oracle Time and Labor Connector has been validated as part of the Oracle Application Integration Initiative. As an Oracle lab-tested solution, this ensures timely integration to OTL, improves system implementation cycles, and provides for smoother upgrades and simpler maintenance. TimeLink's OTL Connector provides bi-directional integration between TimeLink's approved data collection technologies and Oracle Time and Labor.

The Oracle Time and Labor Connector extracts critical validation information for delivery to the appropriate interaction method. The connector also collects and validates time and attendance related transactions, which are then sent to PeopleSoft Time and Labor.



Appendix A: System Facts at a Glance

Supported Interaction Technology Adaptors

Badge-based: Magnetic Strip, Barcode and Proximity

Biometrics: Hand Geometry, Fingerprint

Touch Screen Kiosk

Interactive Voice Response (IVR)

Mobile/Wireless: Palm OS, Windows CE/Pocket PC

Supported Connectors

SAP: HR-PDC (Human Resources/Time Management), PP-PDC (Production Planning), PM (Plant Maintenance), CATS (Cross Application Time Sheet), ESS (Employee Self-Service)

PeopleSoft: Time and Labor

Oracle: Oracle Time and Labor

ASCII

XML

ODBC



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