

# InterconnectNow

UNIFIED COMMUNICATIONS POWERED BY THE E-BONDING GATEWAY

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Understanding the need for an interconnection solution with automation and consolidation driving transparency into service request management, Synchronoss developed InterconnectNow<sup>™</sup>, a licensed or hosted platform that eliminates manual handling of service requests, and manages actions between partners. The platform brings efficiencies that not only reduce operational costs, but also create a better customer experience and improved lead to cash. Synchronoss is able to streamline the service request process of sending and receiving orders through high levels of automation and rules based validation with our Pre-Qualification, LSR, ASR , ESP, and Trouble Administration. The Solution provides system fluidity that leads to reductions in installation intervals, service request errors, and fallout. Users are given the information and ability to effectively process their requests, position customers for self care, and requesting trading partners status.





### INDUSTRY CHALLENGES

Traditional gateway solutions to address interconnection requirements have consistently fallen short in the Industry. To implement these solutions, service providers must master highly complex data processing systems, manage diverse business rules, and continually meet changing technological standards, protocol variations and trading partner modifications. This complexity has led to large IT labor forces and long implementation times. Putting ordering support systems into production with regular monitoring and maintenance has come with tremendous cost to service providers, only for them to realize above-average rejection rates from trading partners. Rejections that significantly drive up the cost per service request and negatively affect revenue, customer provisioning, and ultimately, the bottom line. Further, failure to establish an accurate off-net circuit database effects a carriers' ability to operate efficiently throughout the entire circuit life-cycle.

#### Interconnect Service Processing Challenges



Back Office Disparate Systems

- > Stand alone operational support
- > No visibility of customer data
- > Lost data integrity



- > Specialized agents
- > Non-scalable
- > Error Prone
- > Costly

### VALUE PROPOSITION

	Price & Quote Customer	Order & Install	Service Assurance & Monitoring	Manage Inventory	Audit & Pay Supplier	Invoice Customer
Operating Expense Reduction	x	x	X	x	x	X
Customer Experience	x	х	X			X
Lead to Cash Time Horizon	X	x		x	x	



### **KEY BENEFITS**

- > Consolidated Gateways facilitating automated interconnection services (ASR, LSR, EBTA) delivers rationalized flow-through, and efficient process management for send and receive carrier compliant service requests.
- > E-bonded connectivity to and from carriers such as AT&T, CenturyLink, Charter, Comcast, Fairpoint, Frontier, Verizon, and others.
- Flow-through number portability provides seamless LNP processing.
- Improved automation brings significant reduction to operating expenses and enhanced customer satisfaction.

- Seamless Integration with existing process management systems via API/XML interfaces avoid long lead times, and complex development projects.
- > **Streamlined GUI Interface** allows for simplified request entry and oversight.
- > Preemptive request qualification and automated fallout administration significantly reduces order implementation errors and manual rejects.
- Reduced supplements and fallout via state-ofthe-art rules administration and technology.
- > Improved service restoration with electronically bonded trouble administration between buyer and provider's repair center.



#### InterconnectNow™ExchangeLink Service Bureau



### **KEY FUNCTIONALITY**

#### The InterconnectNow<sup>™</sup> Solution Suite Includes The Following Modules:

#### Access Service Request (ASR)

- Support For All ASOG Form Type
- Virtual Front Office GUI
- Comprehensive Reporting Feature
- Request/Protocol Translation
- SLA Tracking
- Business Rule Validation
- Data Mapping
- Multi-Protocol Transmission

#### Local Service Request (LSR)

#### LSR Coverage For:

- LNP, UNE-LNP, LSNP, DL, UNE-P, Resale Consolidated Loop & Number Port Transaction
- Single LSR Order Repository
- Automated Workflow & Exception Handling
- Real-Time CSR
- Multi-Protocol Transmission
- LERG/NPAC Dip Address/CFA Validation

Line Owner Validation

Port Eligibility Validation

Real-Time Data Correction

Common Port Barrier Identification

Flexible Subscriber Entry

- XML/API or Web-based GUI

Pre-Qual Tool (PQT)

- Industry Standard Compliance - T1.227, T1.228, X.790, T1.262
  - TMOC Implementation Guidelines
- XML/API or Database Interface Integration
- E-bonded Trouble Tickets
- SLA Tracking
- Mechanized Loop Testing

#### Ethernet Status Platform (ESP)

- Ethernet Order Transparency & Timeline
- Visibility Into Supplier Facility & Premise **Build Requirements**
- Dashboard With "Drill-Down" Capabilities Featuring Order Detail (FOC, CNRs, & DLR)
- Communications Log Queries & History
- Supplier Performance Matrix & Management Tools

#### InterconnectNow<sup>™</sup>E-Bonding Solution



### **ACCESS SERVICE REQUEST (ASR)**

InterconnectNow-ExchangeLink eliminates the need for disparate connections to each trading partner. Connectivity with service providers are established using one GUI/API into our automated, nationwide interconnection clearinghouse, which is programmed with the current interfaces and protocols to communicate with all U.S. incumbent carriers. Flexible API allows interconnection no matter what front-end order entry system you use, ASRs coming into the system are automatically transmitted to the appropriate carrier. Electronic bonding is available to an array of top LEC interfaces including (AT&T, CenturyLink, Fairpoint, Frontier, and Level 3). In cases where trading partners require ASRs to be faxed or e-mailed, the system handles the process end-to-end. InterconnectNow transmitts ASRs to more than 800 active trading partners, freeing subscribers from the burdens of those labor-intensive, error-prone manual processes, and enabling them to enjoy fully automated front-end order entry and record keeping.

ASR LSR PQT TA

#### **VIRTUAL FRONT OFFICE (VFO)**

User-friendly order entry system features a GUI with pull-down menus, help functions, and clear, logical displays. With pre-defined order forms and drop-down lists, users can complete ASRs with point-and-click simplicity. Order follow up is made easy with user and team dashboards that help filter and prioritize work.

#### **COMPREHENSIVE REPORTING**

The Synchronoss ASR tool can deliver any number of custom ASR reports that make it easy for subscribers to track order progress, analyze historical and customer-related trends and statistics, and monitor billing activity.

#### **REQUEST TRANSLATOR**

Requests (inbound, outbound, unsolicited) are checked for syntax and context to determine requested activity type.

#### **DATA MAPPING**

Performs pre-order to order mappings at the request of the trading partner receiving the request.

#### **PROTOCOL TRANSACTION**

A combination of well-defined interfaces and flexible protocol/message translators.

#### **BUSINESS RULE VALIDATION**

Syntactical and contextual validations of the requests and validations of the business process rules are performed before requests are forwarded to trading partners, greatly reducing the incidence of transaction fallout. The system is aware of all business rules and processes knowing that no two trading partners will implement their businesses in quite the same way.

#### **REQUEST DATABASE**

Captures and logs all message activities in an Oracle database. The data is available through the use of any SQL capable reporting product. Permits management of order history and status, and provides a repository of active service records across all carriers.

#### **PENDING NOTIFICATIONS**

Messages alert when an access service request is rejected from a trading partner or a jeopardy status has been reached.

#### **BUSINESS PROCESS OUTSOURCING**

ASR provisioners use Synchronoss' tools to pre-qualify, place orders, perform test/accept functions and escalate as necessary for some of the largest carriers in the United States.



## LOCAL SERVICE REQUEST (LSR)

InterconnectNow-LSR consolidates the disparate connections between trading partners in a dynamic environment of CLECs, ILECs, and MSOs. Delivering the customer one gateway and GUI, ready to request or receive e-bonded service requests to an array of LECs including AT&T, Verizon East/West, Frontier, CenturyLink, and Fairpoint. InterconnectNow-LSR handles a broad range of Local Service Requests both LNP and Non-LNP related (LNP, UNE-LNP, LSNP, DL, Resale, UNE-P, or equivalent). The system also facilitates ancillary transactions such as CNAM, LIDB, SOA, and e911. InterconnectNow integrates with both front- and back-end OSSs, and provides bi-directional handling of both send and receive service requests. Multi-threaded processing provides industry-leading speed. Transactions to other partners maintain operations even while one trading partner is taken off-line.



#### **CSR PROCESSING**

The process starts with the initiation of an order on the customer side. After Third Party Verification is complete, a minimum data set of information is sent through the gateway's API into the platform. The system then initiates a CSR request (real-time where available) with the LEC to verify required information on the order.

#### **SCREENING AND FEATURE FLAGGING**

The Pre-Qualification tool then screens the order to ensure that it is eligible for processing. Items such as name and address can be screened for as well as features that might delay or inhibit porting. If any flags are identified, this information is sent back to the customer for remedy, or in certain cases, corrected directly by Synchronoss' Order Management Centers (OMCs).

#### LSR PROCESSING

Getting to FOC. Once the order is validated, a port date (FOC) is ready to be scheduled via the LSR.

#### NPAC ACTIVATION AND UPDATES

On the port date, the LSR Gateway will handle the activation request for the orders with NPAC. After activation, the platform will perform CARE and CNAM/LIDB updates.

#### **LNP PROJECT ORDERS**

The InterconnectNow gateway supports LNP Project orders, which are multiple TN Port orders requiring manual processing and coordination with the LEC.

#### AUTOMATION AND CONSOLIDATION TO DL SERVICES AND NON-LNP

The LSR solution supports Directory Listing services as part of an LNP order (Keep or Remove). In addition the platform can handle standalone DL (no port order needed). Synchronoss' InterconnectNow provides a Directory Listing porting tool for customers to review and modify their directory listing information prior to publishing.

#### **OTHER TRANSACTIONS**

Last mile loop, consolidated loop and number port orders are provisioned and completed with the same solution standards and automation.

LSR consolidates the disparate connections between trading partners in a dynamic environment of CLECs, ILECs, and MSOs.



### **PRE-QUALIFICATION TOOL (PQT)**

The Synchronoss Pre-Qualification Tool (PQT) is a solution that allows users to easily qualify Consumer or Business customers for services nationwide. This solution offers a web based graphical user interface for users to access as well as an XML/API for seamless integration to your company's existing sales CRM and order management solutions. PQT ensures a positive customer experience by arming users with knowledge of a customer's current services.

PQT retrieves CSR requests across all e-bonded and manual LECs nationwide. PQT retrieves CSRs in near real time from e-bonded LECs, and if a CSR is requested involving a manual LEC, Synchronoss will obtain the CSR response from the manual LEC and provide the information within the PQT solutionso all CSR responses are available in one centralized location. CSRs are obtained by entering the minimal request information shown above. Although only one Telephone Number (TN) is used to make the request, all the TNs on the CSR are provided with the response regardless of whether or not the user entered the Billing Telephone Number or Working Telephone Number for an Account.



#### **Process Summary:**

- 1. User enters TN and State and submits a request.
- PQT determines the correct LEC and obtains the CSR automatically if LEC is e-bonded.
- 3. In the event PQT determines that the CSR is for a manual LEC, PQT identifies that the LEC requires manual handling and prompts the user to provide additional data to support obtaining the CSR manually, conforming to LEC CSR requirements.
- 4. User enters data and submits the request.
- 5. Synchronoss resources request and receive the CSR and populate the data in PQT. PQT sends an e-mail to the requestor with a link to the CSR.

#### Additional Benefits Include:

- Improved sales conversion rates by ensuring properly set customer expectations at point of sale.
- > Less time spent on non serviceable customers.
- > Improved pre-sales and post sales provisioning process and cycle times.
- Less rework associated with inaccurately provisioned customers.
- Fewer calls directed to your call centers with improved order and provisioning quality.

#### E-BONDED LECs

The e-bonded LECs are: AT&T, CenturyLink, Verizon, Fairpoint, Frontier, and others. Responses are received in less than 20 seconds.

#### **MANUAL LECs**

For manual LECs, PQT will request additional data to support making the CSR request. Once the data is entered and submitted, Synchronoss resources will obtain the CSR from the LEC and post all responses within the PQT system.

#### **COMPLEXITY MANAGED**

Upon receipt of a request, PQT queries industry databases to identify the LEC that owns the TN in an effort to ensure CSRs are submitted to the correct LEC avoiding timely and costly delays. PQT has seamless connections to e-bonded LEC electronic interfaces to request and obtain CSRs and Synchronoss manages all LSOG version updates and LEC business rule changes shielding clients from the complex interface management tasks. Synchronoss maintains the procedures for manually requesting CSRs from hundreds of CLECs.

#### INTEGRATION TO EXISTING SYSTEMS

PQT can be seamlessly integrated to existing Sales CRM or Order Management systems via a Synchronoss standardized XML/API. PQT also supports a users ability to pull a CSR, and utilize the CSR responses to create LSRs for Number Ports and Directory Listing that can be seamlessly sent through existing OSS/BSS interfaces or through Synchronoss gateways to the national LECs.



### **TROUBLE ADMINISTRATION (TA)**

Traditionally manual processing of trouble reports is expensive, time consuming, and a distraction away from the core focus of service providers, which is to serve customers. With the Synchronoss Trouble Administration Gateway solution, providers are given a gateway tool that streamlines and automates much of the traditional handling needed in processing trouble reports. With electronic bonding of trouble reporting, most steps in the process from the introduction of the trouble report through status updates to providing the authorization to close the report can be performed automatically.



#### **ADMINISTRATION STANDARDS COMPLIANCY**

- > T1.227
- > T1.228
- > X.790 (International)
- > T1.262 MLT Testing

The Synchronoss Trouble Administration Gateway is compliant with industry standards supporting bonding for trouble reporting. Additionally, the Trouble Administration Gateway is designed to be completely compliant with the ATIS/TMOC implementation guidelines. These guidelines were adapted by all ILECs to allow for the standardization of processes and information.

#### **ALL TRADING PARTNERS ON ONE GATEWAY**

The Trouble Administration Gateway supports the bridging of multiple trading partners with one connection (XML or Database Interface) to the trouble management gateway. Service Providers can communicate to multiple trading partners with one connection (XML or Database Interface) from the trouble management system through the electronically bonded trouble administration gateway.

The Gateway formats the information for trouble report processing and auto delivery to the trading partners. Responses are then received by the gateway, bonded with the original request, and the processing of status and close notifications would occur automatically. Streamline and automate trouble report processing from one webbased solution.

#### **INTEGRATION MADE EASY**

Synchronoss offers its customers an XML interface to allow for the interconnection to a trouble management system. Our experts have years of experience performing or assisting in the development of a specialized interface at customer request. In addition, Synchronoss can bring its vast expertise to bear in assisting the service provider on the specifics documented in the trading partner's Joint Implementation Agreement. This assistance shortens implementation time frames and enhances the service provider flexibility.

- > Easy integration through XML APIs, or Database Interface
- Ready to integrate with Remedy, Clarify, or an internal system



### ETHERNET STATUS PORTAL (ESP)

In order to actively project manage their orders, Carrier Service Providers (CSPs) are forced to contact Wholesale Network Service Providers (NSPs) for the latest status or to gain clarification of existing issues. CSPs will also escalate or expedite orders based on the latest status or end user requests to accelerate service delivery dates. These constant interactions with the NSPs drive added costs to both parties, while the lack of current status also lengthens cycle time for the overall delivery of the service. Currently email and telephone calls are used to handle these requests which are difficult to track, time consuming and require manual processing. Synchronoss' Enterprise Status Portal alleviates many of these pressures: allowing Carrier customers to access a single portal that provides quick access to NSPs' key order data, drives more immediate order trouble resolution and reduces cycle time.

#### **STATUS REPORTING DASHBOARD**

#### **Key Features:**

- > Customize and configure dashboard advisory pane
- > Organize key order milestones at the individual or team level: Pre FOC, CNR, Post FOC
- > Access visual milestones at a glance

#### **Key Benefits:**

- > Aggregate view on historical performance by order status
- > Prioritize and organize work effectively
- > Leverage information to pro-actively gain visibility to potential problem areas
- > Add additional milestone categories over time with ease
- > Track outstanding key milestones in relation to overall order

#### **INTER-CARRIER COMMUNICATION**

#### **Key Features:**

- > Explore communications by order
- View a comprehensive audit trail for ever order including time stamps and message content
- Store important information integral to reporting (priorities, communication, etc.)

#### **Key Benefits:**

- > Report easily on turn around time
- > Aggregate details surrounding communications
- > Provide escalation management with access to important historical information related to each order
- > Access communications with full transparency
- > Leverage reporting data for additional optimization of the tool



