Infortel Select
Detailed Product Description

March 19, 2019

INTRODUCTION

Infortel Select is a full-featured call detail reporting and analysis solution for any size business, facilitating collection, processing and reporting of communications activity from most VoIP and legacy PBX platforms, and providing the means by which to analyze, manage and optimize unified communications (UC) interactions, adoption, productivity and expenses. In addition to being well suited for most general business applications, Infortel Select incorporates a variety of industry-specific capabilities and utilities critical to many specialized markets – including healthcare, financial services, government, education, hospitality, professional services and tenant billing.

Infortel Select provides for automated collection of raw call detail records (CDR), and where applicable, call management records (CMR) and live Contact Center metrics from one or many telephony data sources -enabling consolidated reporting and analysis of all corporate telecom activity through a single user interface. Supported data sources include Cisco, Microsoft, Avaya, and dozens of other popular UC platforms as well as a long list of legacy PBX systems that may continue to be used in the customer's environment. CDR may also be collected from edge devices such as gateways or session boarder controllers, cloud-hosted VoIP service providers and directly from land-line and wireless carriers, to ensure that Infortel Select provides visibility into all corporate telecom activity.

Call processing normalizes raw data from each of the various data sources, determines ownership of all inbound, outbound and internal call events by employee and department, and resolves a variety of call attributes required for meaningful reporting or analysis such as: call origin, call destination, jurisdiction, trunk facility used and, if desired, calculation of call cost based upon published tariff rates or customer-specified custom rating plans. Processed call detail is stored in Infortel Select's SQL database, indexed and optimized to support the application's Dashboard and reporting functions, retained for the prescribed data

retention period and automatically purged after aging.

Visibility into processed call activity is provided through several different modules integrated into the Select application experience. Based upon the nature of a given end-user request, one or multiple modules may be leveraged to deliver desired functionality and provide authorized users access to reports and analytics via a secure web browser session. All report access is limited by definition of the user's access rights. This ensures that end-users may only see call activity for those organizations or extensions they have security clearance to view. Popular standard modules include:

- Dashboards (Contact Center and CDR) - User configurable Summary Gates are arranged to build a personal Dashboard providing graphical and tabular representation of call activity, alarms and Contact Center metrics.

- Call Exploration – Easy-to-use drill-down reporting experience for both casual and power users, supporting constraint-driven summary presentation with one-click reveal of embedded call detail.

- Reports – Comprehensive selection of over 150 popular predefined report styles, each with flexible criteria, report scheduling, e-mail merge and other features to satisfy the needs of department managers, report administrators and other power users. Integrated design tools allow authorized users to create their own custom reports, add graphical elements and configure data exports.

- Traffic Analysis – Allows staff engaged in traffic analysis, network planning and optimization of both conventional and SIP trunk facilities to use selected call history for Erlang, Peak Concurrent Calls and VoIP Bandwidth calculations

- Alarms – Real-time notification of undesirable call events based upon user-defined triggers and thresholds to identify abuse, misuse, fraud and 911 calls.

- Directory – User interface for review and maintenance of the organizational hierarchy, employee association to departments, ownership of extensions, devices, equipment and associated one-time and recurring charges.

USE CASES

Built upon ISI's multi-decade success in delivering Call Detail Reporting and Call Accounting solutions, Infortel Select today delivers on a broader spectrum of business value. The following represent the most common business needs customers choose Infortel Select to solve:

USER FRIENDLY & CUSTOMIZABLE REPORTING FOR CISCO CONTACT CENTER EXPRESS

In a formal Contact Center environment, Call Center Supervisors rely heavily upon real-time and historic metrics from Cisco Contact Center Express (UCCX) for analysis of Agent call handling, talk times and overall productivity. Requirements include real-time display of calls in queue, current wait times and available agents so that supervisors can manage to optimize caller experience and service levels. Contact Center Managers seek more friendly and flexible reporting than Cisco bundles with UCCX. They require an easier way to design, save and produce custom reports with a broader choice of fields and user-definable selection criteria. And they need to overcome the limited call history inherent with native Cisco reporting to perform more useful trend analysis.

Benefits

- A reporting interface that's flexible, intuitive and does not require an IT resource to configure a report

- An integrated Report Designer allows users to create, save, run and distribute new custom reports

- Customizable Dashboard so that each supervisor and can configure their own custom Dashboard to monitor only the Agents and Queues they are responsible for

- A large format Wallboard display option keeps a room full of Agents aware of calls in Queue and running daily service levels

- Consolidated reporting applications - CDR and UCCX contact center reporting are both provided within a single application

- Satisfies reporting needs not met by native Cisco UCCX reports –

    o Reporting of Agent and Queue information on a single report

    o Ability to report on multiple UCCX Clusters in a single view

    o True historic and trend reporting with a user-definable retention period

VOICE AND VIDEO NETWORK OPTIMIZATION

IT staff and Voice Network Engineers Seek visibility into both conventional and SIP trunk utilization and require tools to help them spot Quality of Service problems, and make sound decisions on call routing changes, trunk facility expansion and carrier selection. Real time Alarms, historic trend reporting, and analytic tools are each required to right-size circuits and available bandwidth to avoid call blockage without unnecessary expense.

Benefits

- Analyze call traffic by trunk and carrier to optimize circuits, services and routing – for legacy PRI (Erlang CCS) & SIP trunk (CCP) circuits

- Identification of historic peak moments of usage to right-size for desired service levels

- Accurately calculate peak Concurrent Call Paths in preparation for SIP migration

- Project savings to justify VoIP telephony and SIP trunk conversions

- Optimization of least cost routing effectiveness

- Model future UC traffic requirements based upon consolidated, selected and hypothetical analysis

- Perform VoIP bandwidth calculations using actual call traffic and user-selected CODEC

- Generate near real-time Alarms on call activity routed to overflow trunk groups

HUNT GROUP REPORTING

For those organizations that employ Hunt Group based call presentation and Cisco's embedded Native Call Queueing, Hunt Group Supervisors and Customer Service staff require visibility into call metrics by hunt group – call volumes, Queue times and historic hourly call traffic trends to ensure desired service levels are met, proper staffing is maintained and a positive caller experience. Visibility into Hunt Group Agent activity and productivity is also required for coaching and employee performance.

Benefits

- Report and evaluate call counts, types and durations by hour of day for each hunt group and individual agents

- Visibility into Cisco Native Call Queueing application metrics – queued calls, queue times, percentage queued calls by hunt group

- Identify poor caller experience events such as abandoned calls, excessively transferred calls, disconnect party & redirects to voice mail

- Analysis of call source to the hunt group – i.e. Help Desk management analyzing which internal departments generate the most support calls

- Identification of peak Hunt Group traffic times to anticipate staffing needs

- Abandoned calls analysis through visibility into the calling party ID, actual ring time before dis-connect and offending Agents

SEARCHABLE CALL ARCHIVES & 911 CALL NOTIFICATION

Corporate Compliance Officers require powerful call history search tools to enforce corporate policy and satisfy regulations around acceptable communications. Human Resources staff require flexible on-demand call history search tools to investigate threats, employee harassment, and employee performance issues. Data retention time must be controllable to ensure the presence of a UC audit trail and destruction of data when it is appropriately aged.

Benefits

- Satisfy legal and HR requests for call detail records with fast and flexible on-demand search tools
- 911 call tracking and notification – report on and investigate source of 911 mis-dials
- Investigate claims of employee harassment, phone abuse or productivity problems
- Provide proof of voice, video and conference calls made & received
- Receive user-definable Alarms for near real-time notification of undesirable events
- User-defined call history retention period eliminates uncertainty of limited UC platform retention, ensures compliant data availability and provides for automatic destruction of aged data
- IM & File Sharing events tracked (UC platform specific)
- Integrated Collaboration Recording option (Verba) to include call/event content & Ethical Wall applications

COST ALLOCATION & CHARGEBACK

In organizations where allocation of telecom expenses is practiced, Accounting, CFO and Line of Business Managers seek visibility into telecom spend by department or cost center. In organizations that provide telecom services to tenants or outside entities, there may be a

need for generation of telecom services invoicing to facilitate chargeback of services provided and generate revenue to the organization. In professional services environments, Law firms, Accounting firms, Public Relations firms, etc., there may be a need to track both telecom expenses and related billable time to drive services billing to the firm's clients through a Time & Billing System.

Benefits

- Accurate rating of voice and video call events based upon the actual telecom expense or company defined custom rates
- Association of each call event down to the individual employee and department for accurate organizational roll-up
- Export of allocation or billing files a General Ledger or Time & Billing system to facilitate automated chargeback

DATA ACCESS & VISIBILITY

Select's Dashboards, Reports and Alarms provide a variety of ways to gain visibility into UC activity. Each leverage a user-friendly web browser interface that makes easy work of generating and viewing popular reports for department or line-of-business managers yet provides powerful tools to allow IT and Telecom staff to conduct more complex analysis, create custom views or export data to other applications.

CDR DASHBOARD

The CDR Dashboard is used to allow each user to configure their preferred view of available CDR-based call activity and expense Summary Gates. Most gates provide graphical representation of statistics and easy drilldown access to embedded summary and detailed call data. Users may choose from a selection of pre-defined Summary Gates to populate their Dashboard and size and arrange Summary Gates as desired to optimize visibility. Each user may also create, name and save multiple Dashboards to quickly toggle from one view to another.
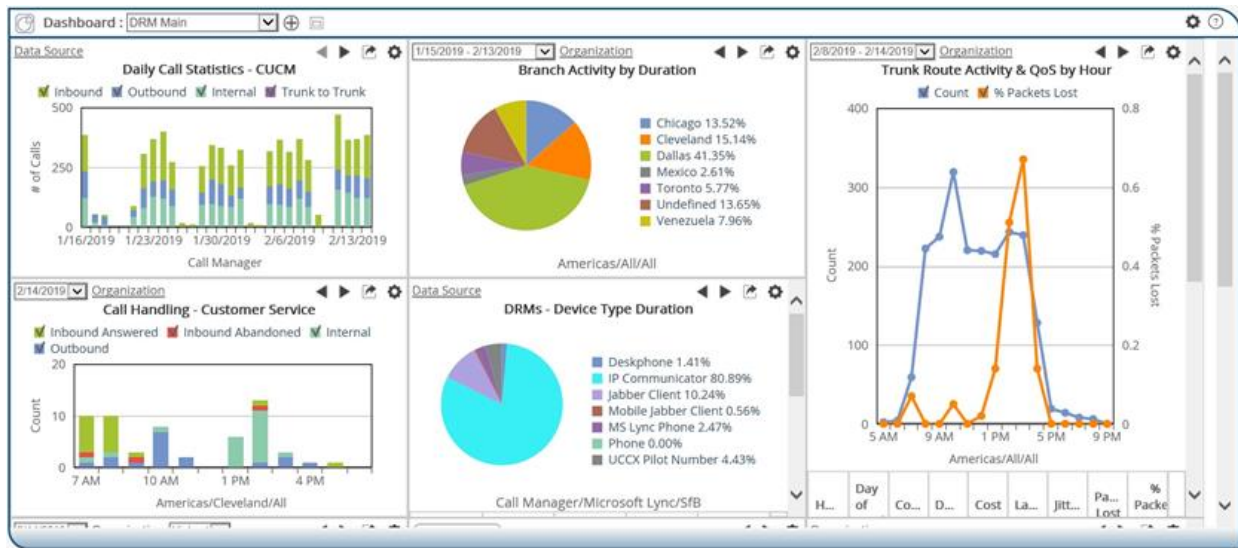
Pre-defined Summary Gates include a variety of popular views such as:

- Call Handling – call counts by hour of the day

- Ring Time – time to answer or abandoned by employee

- Daily Call Statistics – directional call volume trending by day

- Daily Activity by Organization – organizational breakdown of call activity

- Usage Exceptions – employees with over threshold call activity

- Alarms – call events indicative of abuse, misuse or fraud

- High Cost Calls – recent calls exceeding a defined cost threshold

- Long Duration Calls - recent calls exceeding a defined duration threshold

- Quality of Service by Hour – VoIP call latency, jitter and lost packet analysis

Additionally, users may take advantage of the built-in Summary Gate designer utility to modify and build upon the pre-defined gates or create altogether new custom Summary Gates that may be saved and shared with others.

CONTACT CENTER DASHBOARD

The Contact Center Dashboard is used to allow authorized Contact Center supervisors and Agents to configure their preferred view of real-time Contact Center metrics through available Summary Gates. This feature is presently limited to Cisco UCCX environments. 3 different Summary Gates styles are available for use in configuring a user's Contact Center dashboard – Queue Status, Agent Status and Performance Statistics:

- Queue Status displays each of the user's chosen Queues and indicates with real-time updates, critical Queue focused metrics such as: Calls in Queue, Oldest Call in Queue, Logged in Agents, Available Agents, Talking Agents.

- Agent Status displays the names of the Agents working chosen Queues and indicates with real-time updates critical Agent-focused metrics such as: Current Status, Time in Status, Calls Handled & Calls Transferred.

- Performance Statistics displays each of the user's chosen Queues and indicates with real-time updates, cumulative Queue metrics for the current day including: Total Calls, Calls Handled, Calls Abandoned, Average Talk Time, Average Queue Time and Longest Queue Time.

Each of these 3 Summary Gates may be displayed as a component within a desktop Dashboard or displayed individually as a Wallboard display – enlarged and suitable for projection on a large screen monitor for use by a roomful of Agents.

User definable thresholds allow Infortel Select to use color coding to alert Dashboard viewers of Contact Center metrics that meet or fall short of corporate service level goals.

Both the CDR and Contact Center Dashboards are viewable using a standard web browser and optimized for use on mobile devices and tablets as well as PC and MAC desktop displays.

CALL EXPLORATION

The Call Exploration module provides an easy point-and-click interface to allow drill-down review of call activity through various levels of organizational summary to full call detail for an individual employee. This tool is designed to allow a user to quickly examine a summary presentation of call activity by user-specified criteria and then explore details without having to configure and run a report, and with the flexibility to navigate up, down and around the organizational tree. Many users find Call Exploration faster and easier to use than generating traditional reports as it presents all call activity in a uniform web browser table view, with minimal need to define any constraints prior to getting results.

In addition to the default drill-down by organization, Call Exploration may be optioned to drill from summary to detail by data source & trunk facility, by extension location, or jump directly to call detail matching one or multiple user-specified constraints.

User definable constraints allow summary and embedded detail to be restricted by popular search criteria like: date, time, call type, extension number, dialed number, department,

owner name, call duration, call cost and a long list of other call attributes.
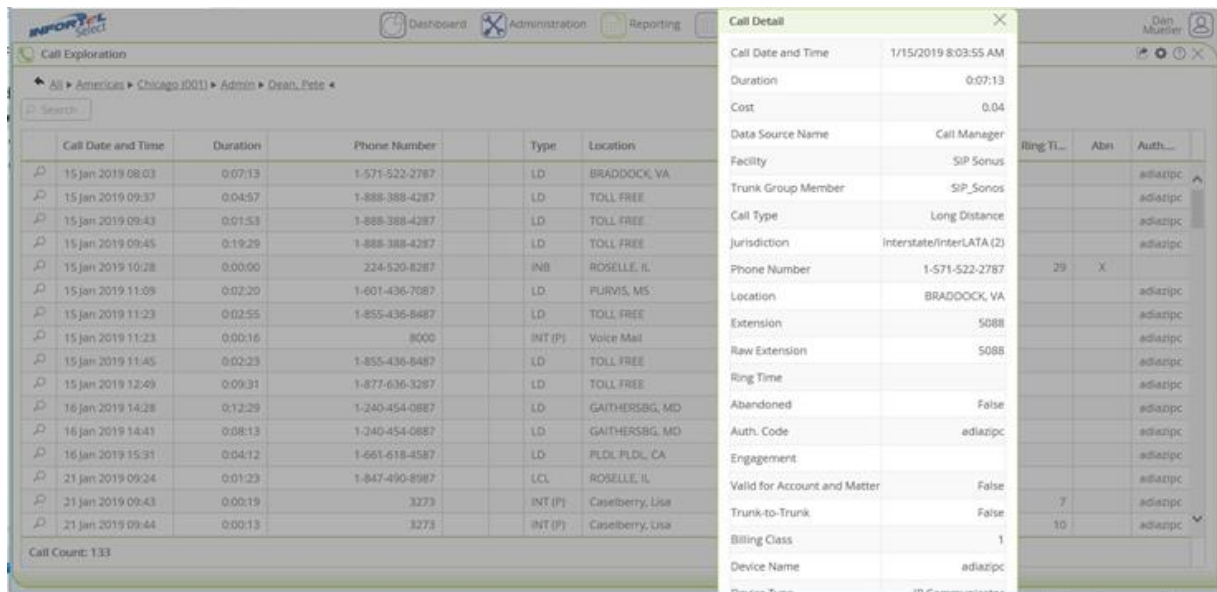
Once call detail is displayed, Call Exploration includes an embedded reverse number lookup link for each call record, to search for the identity associated with a dialed number or calling number. Results are based upon a chosen web site link and published number identity information. Call Exploration also offers a Call Detail link for each call record to display additional call attribute fields such as QoS values, call jurisdiction, trunk facility used, device name and device type.

Call record sorting may be changed by clicking on column headings and displayed data may be printed or shared electronically in PDF, HTML or Excel format by clicking on the Share icon.

Cost Center	Call Type	Count	Cost	Duration	Average Cost	Average Duration	Abn
Chicago (001)	Local	86	115.95	5:23:56	1.35	0:03:46	
	Long Distance	201	110.88	43:56:24	0.55	0:13:07	
	Inbound	256	0.00	5:51:21	0.00	0:01:22	118
	Internal (P)	205	0.00	16:07:48	0.00	0:04:43	20
		748	226.83	71:19:29	0.30	0:05:43	138
Cleveland (004)	Local	103	455.37	3:53:26	4.42	0:02:16	
-All		7,933	2,946.72	545:48:45	0.37	0:04:08	853
	Local	428	2,516.82	27:41:29	5.88	0:03:53	
	Long Distance	1,206	429.90	258:54:51	0.36	0:12:53	
	Inbound	3,858	0.00	161:12:15	0.00	0:02:30	687
	Internal (P)	2,441	0.00	98:00:10	0.00	0:02:25	166

REPORTS

Infortel Select's Reports module allows users to generate, schedule and distribute a broad spectrum of popular reports and to create custom reports designed around the organization's unique needs and preferences. Infortel Select comes with a comprehensive selection of over 150 pre-defined reports right out of the box - to make easy work of common summary, detail, exception and trend reports needed by department and line-of-business managers. Report choices are arranged in submenus based upon common business needs including:

- Compliance & Corporate Security

- Contact Center Metrics

- Cost Allocation & Chargeback

- Device Utilization & Technology Adoption

- Productivity & Staffing

- Traffic Analysis & Network Planning

Pre-defined reports also serve as "templates", equipped with an exhaustive selection of data filters, report options, formatting and field, column and sorting controls to allow customization demanded by System Administrators, IT and other 'power users'. This means that Select's extensive library of pre-defined reports are just the start of what you can do with the powerful proprietary reporting engine embedded in Infortel Select – all without need for third party reporting tools or SQL DBA skills. Each user granted Report Administrator rights has the flexibility to configure, generate and distribute their own customized reports, add graphs, create exports, and save their creations for personal use or share with others. Finally, report production may be automated through Infortel Select's built-in Report Scheduler – automatically distributing information to designated recipients via email attachment or a secure web-based Reports Portal. Reports may be produced in a variety of formats including PDF, HTML, Excel and user-defined fixed or delimited ASCII files.
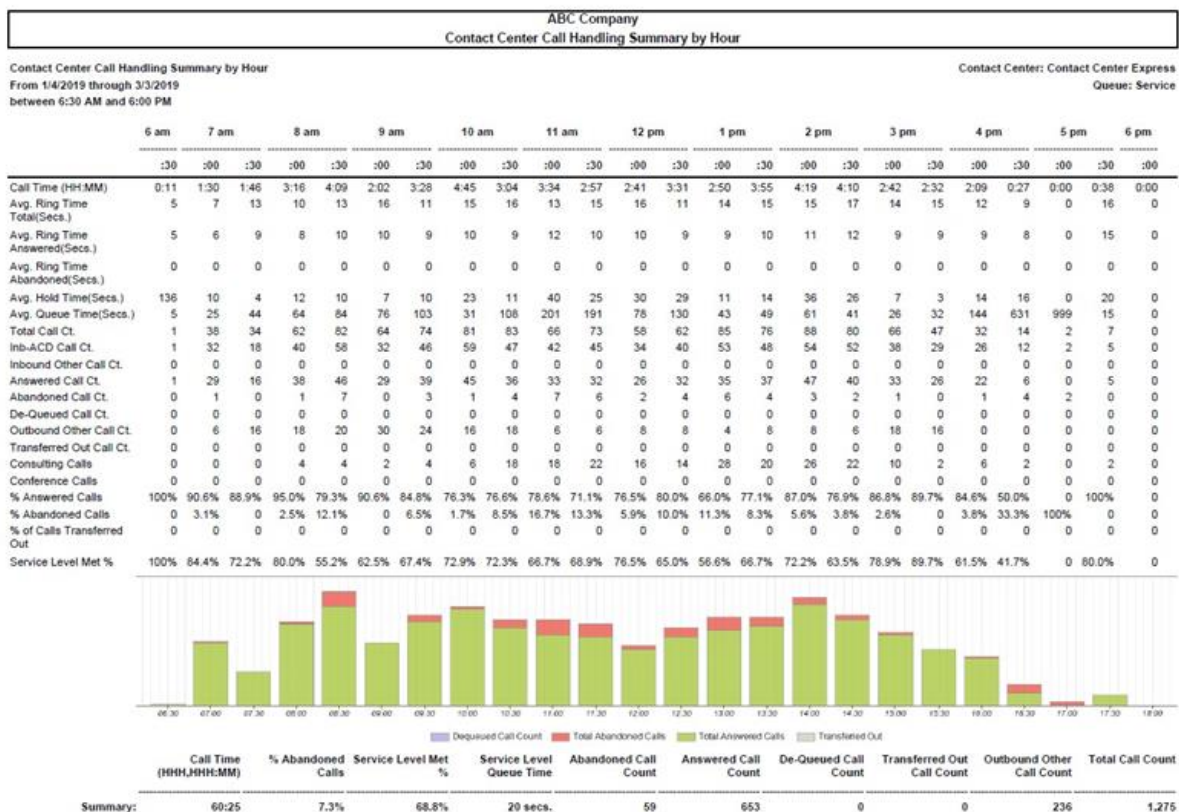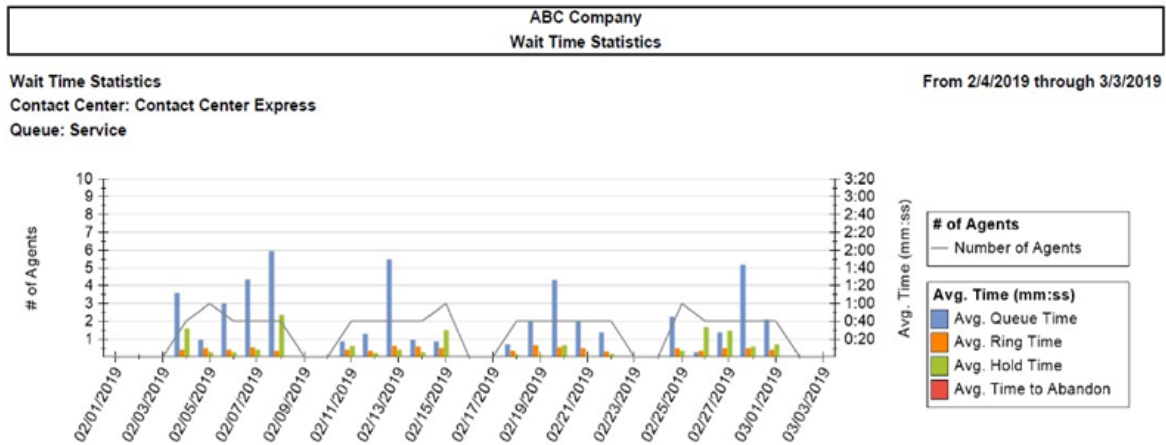
A comprehensive selection of popular pre-defined report examples can be found in Infortel Select's various Sample Reports brochures.

For those with the most demanding of custom report needs, Infortel Select also offers a selection of blank templates upon which one can design entirely new and custom report views leveraging the full flexibility of report Format, Fields, Constraints, Graphs, Output Options, Scheduling and Mail Merge. Data elements may be added from an extensive drop-down list of available fields. Summary level, page break and level of detail may all be controlled by the designer. An exhaustive list of call attributes may be used to establish constraints for included data, and a variety of colorful graphical elements may be embedded to enhance readability and presentation of reports. Custom reports may be saved for future use, shared with others and even embedded in custom menus to tailor reporting to each organization's end-user audience.

TRAFFIC ANALYSIS

Infortel Select includes an integrated Traffic Analysis module for evaluation of trunk facility utilization based upon daily, hourly or peak call activity with an indication of both Peak Concurrent Calls (CCPs) and the number of trunks necessary to achieve a desired class of service (Erlang CCS). A 'What If' utility is included to project actual grade of service or number of trunks needed under anticipated traffic situations. Traffic Analysis provides an accurate and in-depth analysis of voice traffic to produce reports on total traffic volumes, peak traffic hours, unusual traffic patterns, and effectiveness of least-cost routing. Resulting metrics may be used for carrier and platform-agnostic assessment of the existing voice network, optimization, bandwidth calculation, network planning and calculation of potential savings to be gained from migration to VoIP conversion to SIP trunks and call routing changes to take advantage of toll bypass and tail-end-hop-off.

Some beneficial reports offered in Select's Traffic Analysis offering:

- Concurrent Calls by Hour

- Concurrent Calls at Peak Busy Hours

- Bandwidth Analysis

- Erlang B – Average Hourly Call Traffic

- Erlang B – Calls Per Peak Busy Hour

- Jurisdiction Summary by Trunk Group

- Summary or Detail of call activity by trunk member, circuit, route, group, facility or gateway

Like other Infortel Select reporting modules, Traffic Analysis includes a core set of popular pre-defined reports that serve as templates for customization of existing reports and the ability to design altogether new custom reports by defining Format, Fields, Constraints, Output options and Scheduled distribution. New or modified reports may be saved to the Reports menus for future use and scheduling.

ALARMS

The Infortel Select Alarms module provides for automated detection and notification of unusual or undesirable call detail activity. This is often used for identification of potential toll fraud, abuse or misuse of telephony resources. It can also help to detect conditions indicative

of outside parties attempting to hack the phone system. Alarms are triggered based upon user-defined call conditions - thresholds of call cost or duration, dialed number, caller ID, excessive activity with a defined time frame or a variety of other call attributes. As Infortel Select processes new call records, new call activity is compared to defined Alarm conditions, and the moment a threshold or undesirable call event is detected, a notification sequence occurs. Each Alarm may be defined to notify one or many individuals of the event and notification may occur by way of a Dashboard Summary Gate display, e-mail, text message or Alpha-numeric pager.
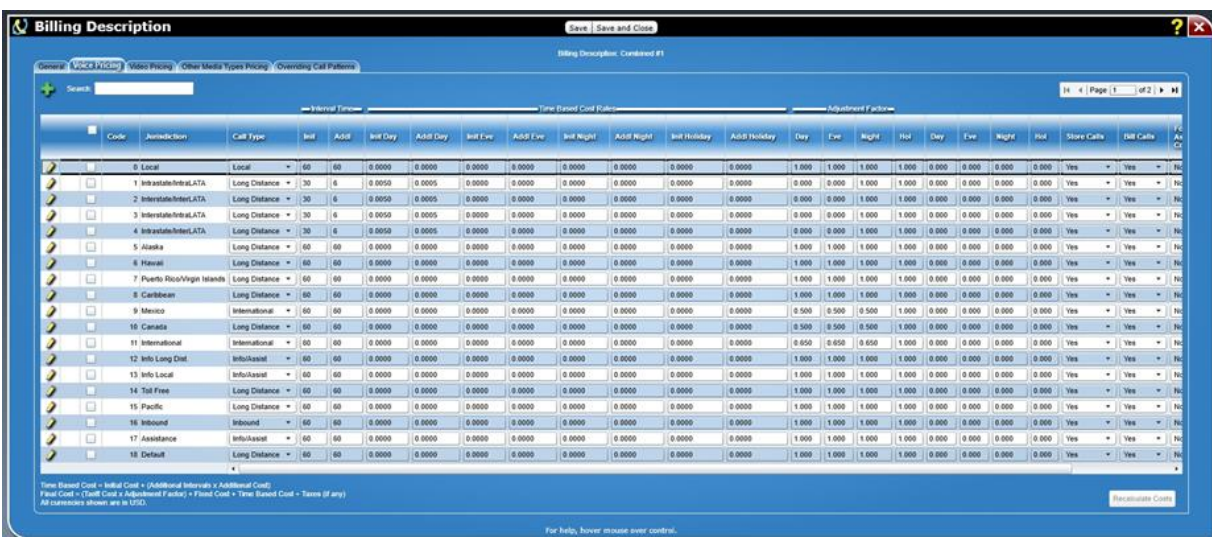
Popular Alarm conditions include:

- Calls more than a specified duration

- Calls more than a specific cost

- Calls made to user-defined telephone numbers, including 911 (and from, with Automatic Identification enabled)

- Calls made to and from defined extensions or departments

- Calls made over specific trunk groups and/or trunk lines/members

- Short duration calls (with user-defined definition of "short")

- "No calls" alarm – Infortel Select hasn't received call records in a specific timeframe

- "No calls" alarm specific to a particular trunk or gateway – possible circuit failure

- "Corrupt CDR" alarm – alerts if data is illegible or "unreadable"

- "Undefined" alarms indicate a call was made over an undefined trunk line, extension number and/or authorization code.

- Poor Quality of Service calls

- Malicious Calls (in Cisco CallManager deployments)

CALL RATING

When Cost Allocation, Chargeback or Tenant Billing applications are in play, Infortel Select's

integrated call rating engine automatically applies customer–specified cost to each call. Customers may choose from a variety of call rating methodologies based upon the desired objective. Infortel Select employs Rate Table databases which resolve the location of call origin and dialed number against the public dial plan and prevailing carrier tariffs to determine call jurisdiction and city, state, country of destination. This information combined with the call duration, time of day and trunk route used forms the basis for all call rating methodologies supported – carrier tariff rates, discounted or marked up carrier tariff rates, and customized rate plans using customer defined rate per call or per minute with sensitivity to initial and additional period rules and pooled minutes. Benefitting all rating approaches, periodic Rate Table updates ensure that changes or additions to the public dial plan are recognized for accurate destination and call jurisdiction. All jurisdiction and rating is point-of-origin specific and may be defined to apply per carrier and trunk group at each location.

Infortel Select also supports use of multiple Billing Classes to establish and apply multiple call rating plans to selected departments, tenants, account code calls and even specific extension ranges. Additionally, overriding call rating plans may be defined for specific telephone numbers, such as conference services, 900 and information calls.

Rated calls then become available for a variety of pre-configured and custom reports, exports, Alarm triggers and Dashboard Summary Gates. When an external application such

as a general ledger accounting system, time & billing platform or a property management system would benefit from electronic transfer of billable calls, an integrated data export utility provides for end-user or ISI-assisted configuration of Excel or ASCII text export files by which billable call detail or summary information may be transmitted.

Call rating is supported for both US and any international location with Rate Table tariff support for most global carriers and flexibility of reporting calls in both a local currency and a chosen common global currency. Automatic updating of prevailing currency exchange rates within Infortel Select is supported to ensure accuracy in fluctuating markets.
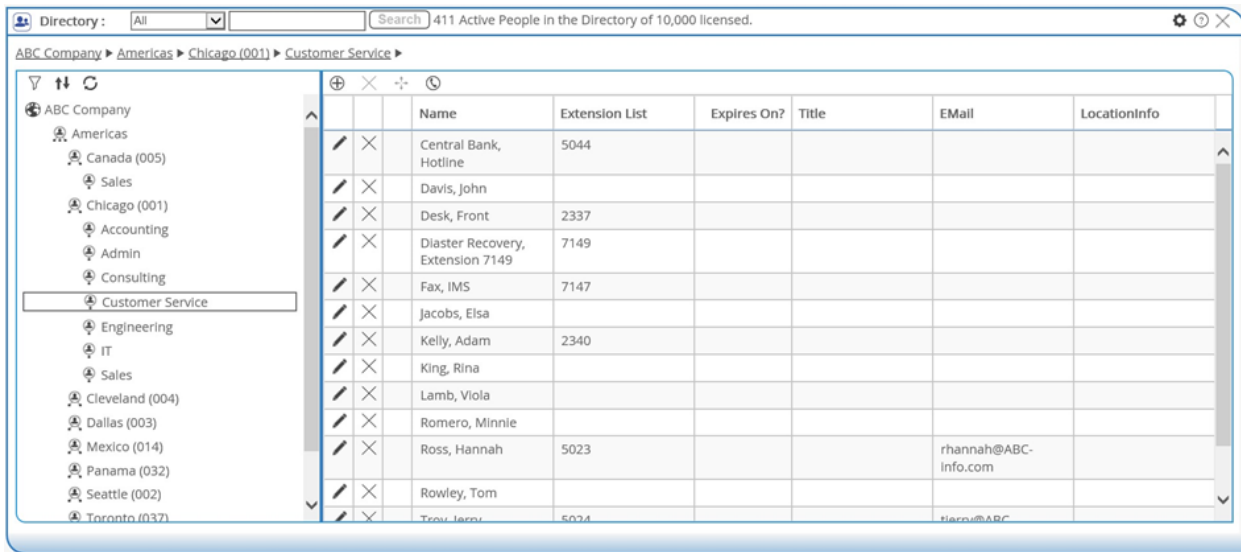
Itemization and assignment of expenses not directly associated with usage is made possible through Infortel Select's support for recurring and one-time equipment charges, overhead charges, miscellaneous debits and credits. Frequently-used charges may be defined to include quantity, part number, description and unit cost. Charges are assignable to individuals or departments. Infortel Select supports pro-rating of these charges for partial months. Overhead charges facilitate proportional allocation of selected non-usage expense to all users based upon relative usage.

DIRECTORY

 Organizational hierarchy, departments and employee association to a department is typically pivotal to effective reporting and analysis – from the perspective allocation of charges to appropriate cost centers, to facilitate more efficient workgroup activity reporting and as a basis for application security. However, most telephony platforms do not support, or do a poor job of representing departments and organizational hierarchy. Thus, Infortel Select provides an embedded organizational directory module that synchronizes with Active Directory or other LDAP sources to provide a common foundation for both reporting and application security.

The Directory module provides authorized users a simple and friendly interface for definition and maintenance of locations and organizational levels necessary for effective reporting,

association of employees and their respective communications devices to departments and assignment of roles-based access rights for those that are granted access to the Infortel Select application. When a suitable external database source is available, Infortel Select's Directory will utilize LDAP, ODBC or its own import wizard to establish ongoing synchronization. When no suitable source exists, Directory may be used on its own to create and maintain employee and organizational information needed to drive reporting.

Authorized users can view and edit the directory, enter the results of completed adds, moves and changes activity to ensure that call accounting reports accurately reflect current extension, user and department information. The directory interface also provides support for entry and maintenance of equipment inventory by employee, recurring equipment charges, miscellaneous one-time charges and credits to be reflected on the reports as well as e-mail addresses used for automated report distribution.

SECURITY

As call detail records are considered sensitive information, Infortel Select has been developed and offers features to support tight controls on how users may access data:

- Available Encrypted data transport

- Roles based security profiles

- Multi-dimensional data restriction – by organizational entity, module access, data source, user versus admin rights

- Customer-controlled data retention period with automated purge of aged call records

- Available Single Sign-On implementations

- User session logging and reporting

- Secure hosted data center facility – SOC2 audited

- Infortel Select application and ISI processes certified compliant with HIPAA data privacy guidelines

DEPLOYMENT OPTIONS

The Infortel Select application may be deployed in one of three ways to align with the customer organization's preferences, resources and desired level of system administration involvement. All Infortel Select functionality described herein is available under each of the three deployment options:

- Infortel Select Cloud – ISI hosted Software as a Service model
- Infortel Select Cloud Pro – ISI-hosted and Fully Managed service engagement
- Infortel Select On-Premises – Customer-hosted software subscription model

SUPPORT

ISI offers expert application support and quality customer service through a Technical Assistance Center second to none in the industry. Customer Account Managers, Product Specialists, Engineers and IT staff work together with the Customer and Authorized ISI Distributors to ensure a smooth installation, reliable service delivery and total customer satisfaction.

ABOUT ISI TELEMANAGEMENT SOLUTIONS

ISI's Solutions portfolio brings together time-proven technologies for the management of unified communications through wireless and landline Call Accounting & Reporting, Telecom Audit & Optimization, Collaboration Recording (Voice, Video, Instant Message, Screen Capture), Invoice & Inventory Management, Wireless Management, Speech Analytics, and Workforce Management. ISI's facilities, processes, and data security comply with ISO 9001:2008, SSAE 16, HIPAA, Privacy Shield, GDPR and other important standards.

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