



ISP-I (Core)

Customer Experience Monitoring (CEM) Software



...to build a world-class brand you must deliver a world-class customer experience...

To effectively report and manage problems such as a failure or service degradation on today's networks, management & operations must have a clear, online, real-time view of the whole network.

Epitiro's flagship Customer CEM product, ISP-I™ provides internet service providers (ISPs) and Telcos with the world's most advanced and only true end-to-end broadband customer experience management solution.

ISP-I™ provides real-time monitoring of the accessibility, integrity and retainability of the network and its services as actually experienced by its customers at all times. Customer experience is monitored, beyond the edge of the network, by on-going active testing and collection of the Key Performance Indicators (KPIs), providing detailed information about the specific aspects of the Quality of Service (QoS) and the customer's actual experience Quality of Experience (QoE) while using the provider's services.

This information may be then fed into key OSS/BSS applications forming an essential

medium whereby an operator can measure and adapt to how effectively it is delivering services to its core customer base.

ISP's six key customer questions

- How do you increase Average Revenue per User (Unit) (ARPU)?
- Do you understand your customers experience when they use your service?
- Do you know what levels of satisfaction your competitors customers are experiencing?
- How do your services compare to industry benchmarks?
- How do you increase customer satisfaction levels?
- How do you reduce customer churn?

ISP-I™ empowers service providers and network operators with a very strategic business tool and a key differentiator in a tough competitive market whereby they can develop deeper and more open understanding of user experience, which ensures increased customer loyalty, reduced churn, increased ARPU and market share.

With ISP-I, you can:

- Optimise business outcomes by improving end users' quality of experience
- Lower costs by reducing the number of help desk calls from end users due to application performance degradation
- Minimise revenue risk associated with customer abandonment due to unacceptable reliability or performance problems
- Drive business revenue by improving the availability of revenue producing applications
- Mitigate business risks and costs by reducing the number and duration of application outages
- Manage IT from a business perspective to improve service levels.
- Translate business goals into IT operational level agreements (OLAs)
- Ensure alignment between LOBs and IT by measuring and reporting on service levels from an end-user perspective
- Proactively identify, triage, and diagnose problems to prevent service downtime and Minimise impact to customers.

At the heart of EpiTiro's Service Performance architecture are end-user agents distributed directly throughout your customer base. These agents proactively monitor, assess and accurately measure the performance of your service delivery – enabling you to understand and improve the level of service to end users.

The ISP-I Suite allows for on-going 24x7x365 assessment of ISP service quality and reliability. To accurately measure the quality and reliability of service provision & delivery from the end-user perspective, EpiTiro's UK ISP-I footprint represents a geographically and network diverse testing platform, with in excess of 300 test agents deployed in all major population centres of the United Kingdom, (see diagram), all connecting via the public internet using standard ISP Dial-Up, Broadband or Cable connections.

A typical ISP-I™ deployment proactively service and application availability in real time, from the end-user perspective, so you can fix issues before customers experience problems. It proactively emulates end-user processes against your network on a 24x7 basis for core operations – connection (RADIUS), HTTP (Network) FTP Services and others.

Plus, it enables you to assess business impact on real users across multiple domains and geographies, and manage end-user performance from any number of geographic or network diverse points.

By providing diagnostic information from a user perspective, ISP-I™ helps you isolate and triage production problems and reduce time to resolution. ISP-I™ can also be implemented with EpiTiro Managed Services for Service Provision – so you can accelerate time to value by getting up and running in a matter of days or weeks.

Key Capabilities

ISP-I™ End-user Agents can be deployed anywhere within or outside the network. Agents can be located in geographically and network diverse sites throughout a region under test, and easily configured to monitor the availability and performance of the Service Provider network (including Cable, DSL, VAN, ISDN and Fixed Wireless), diagnose and correct problems before they impact end users, and verify service level objectives to your end users & customers. These Agents function exactly as end-users would do, connecting to your services using standard Microsoft Windows™ XP RAS and networking features. Connection statistics are recorded



The ISP-I™ Network

Glasgow	Bristol
Edinburgh	Birmingham
Teeside	Milton Keynes
Manchester	St Albans
Kingston	Basingstoke
Swansea	Hook
Cardiff	London 1
Cardiff (3G/GPRS)	London 2

during connection. Once connected, the agents perform a series of tests and records the following data for your organisation and your chosen competitors:

- Modem Answer
- Negotiation Time
- Authentication Time
- Address Assignment
- Additionally Connection Failures (with detailed error codes)
- HTTP Throughput by Region (Cached & Non-cached)
- FTP Download Speed/FTP Upload Speed
- Ping Time (including detailed 'trace route' reporting)
- DNS Time
- Packet Loss
- Email Statistics including:
 - Email Round-trip
 - SMTP Failures
 - POP3 Failures
- Optional: Historical and Time of Day reporting options are available for all metrics

Features and Benefits

ISP-I™ is a feature rich customer experience management solution that focuses on delivering superior functionality and value add for the service operator. A key advantage of ISP-I™ lies in its ability to measure in real time how an individual customer actually experiences an operator's wireline services in any location from any network connection or geographic location.

- Powerful and flexible report generation, including web browser access to all reports – complete and flexible access to network knowledge. Understand what your customers are experiencing in real-time from multiple locations
- Trend Testing: Profile the behaviour of your network with continuous long term testing at different times of the day, week, or month
- Distributed high performance test agents easily managed & coordinated by centralised Operations Management server
- Real-time Web Interface

- ISP-I™ can scale & evolve to meet an operator changing service requirements. For an operator, this protects any investment they have already made and reduces their overall integration and operational costs
- ISP-I™ can be seamlessly integrated into any network infrastructure
- 'At a glance' insight of your competitors strengths and weaknesses
- ISP-I™ can define and activate customer specific Service Level Agreements (SLAs) around objective customer experience metrics, which can be easily and accurately verified
- Multiple levels of drill-down detail right down to a single protocol/service test
- Flexible Hourly/Daily Weekly and historical reporting
- A complete set of Real-time alarming features which can be defined for specific customer groups, individuals, network cells, by service-offering or connection type (ADSL/Cable/Wireless)
- Defining and managing customer-specific Service Level Agreements (SLAs) both for an individual customer or group of customers is a key feature of ISP-I™. Because it measures in real time how customers actually experience an operator's wireline services.

Flexible and Scalable Connectivity

The ISP-I Test agents support a wide variety of interfaces including ADSL, T1/E1, Cable, DSL, ADSL2+, SDSL, VPN, ISDN and Fixed Wireless



ISP-I includes deployable hardware or software-based testing agents and a multi-configurable and customisable reporting dashboard for performance and network monitoring, and problem resolution. You can also choose to have ISP-I delivered as a managed service.

