

Infrastructure Management

AMPTRAC™

**Intelligent Infrastructure
Management System (IIMS)**

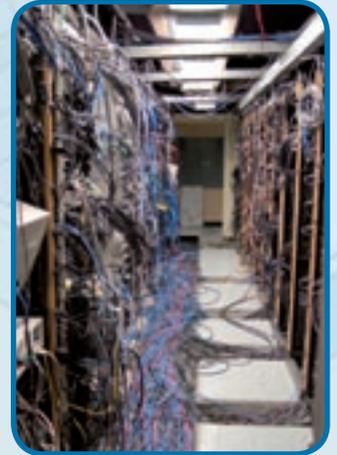


 **Tyco Electronics**
Our commitment. Your advantage.

Introduction

The requirements of today's rapidly growing and changing enterprise infrastructures are no longer fully satisfied by traditional process-based IT infrastructure management but now need intelligent, real-time management. The main deficiencies of traditional IT Infrastructure management are:

- Maintenance of connectivity records is time consuming & expensive
- Inaccurate records and long cycle times
- Difficulty in managing and tracking work and change orders
- Possible & likely deterioration in infrastructure flexibility, effectiveness and response times



The advantages of IIMS

High end intelligent infrastructure management systems (IIMS) like **AMP NETCONNECT's AMPTRAC** have been designed to address the limitations described above. As an integrated part of the enterprise's network management, AMPTRAC offers excellent flexibility and automation resulting in a significant **reduction of the Total Cost of Ownership (TCO)** of the network. The key elements for achieving this are

Real-time Documentation

- Self discovers infrastructure ports & their associated connectivity
- Registers the status of every port and documents when patching occurs
- Historical log file of every 'event'



Infrastructure Control

- Remote real-time fault management
- Responds to unauthorized actions & events by triggering alarms or events

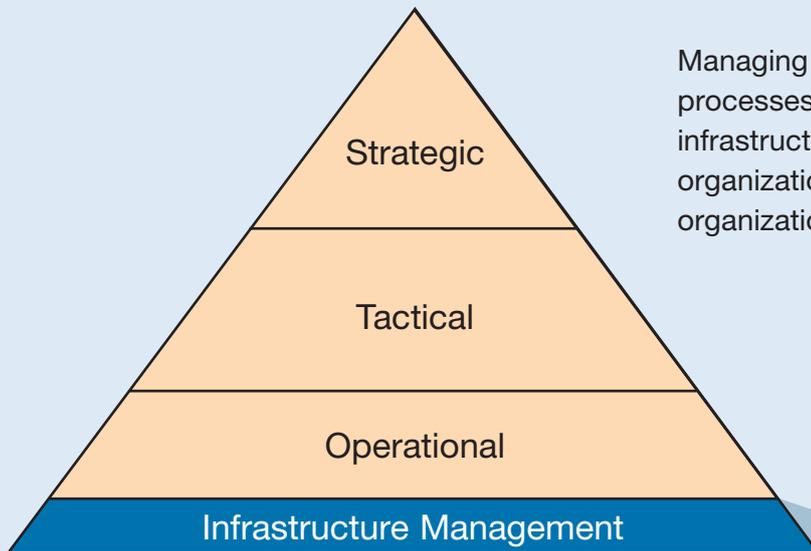
Optimized Configuration, Change and Asset Management

- Auto creates & completes authorized work orders
- Provides detail, location, utilization & audit trail of all network assets
- Integration with Help Desk, NMS, PBX, BMS/FM & Asset Management

Reduced TCO through Intelligent Control

Why Intelligent Infrastructure Management Systems?

For disparate distributed technology and resources to operate reliably in an integrated and supportive manner, good planning and coordination are necessary. This requires intelligent management for the definition, monitoring and implementation of the ICT (Information and Communications Technology) Infrastructure. The foundation for all this is the physical layer.



Managing this physical layer is vital to all the processes and services that depend on the ICT infrastructure. Since it is the foundation of the ICT organization, it can be said that the whole service organization depends on it.

The physical layer connects together all the network devices. This is the lowest of the 7 layers in the reference model defined by the International Standards Organization's (ISO's) Open Systems Interconnect (OSI) group.

Layer 7: Application

Layer 6: Presentation

Layer 5: Session

Layer 4: Transport

Layer 3: Network

Layer 2: Data Link

Layer 1: Physical

The additional Value of AMPTRAC

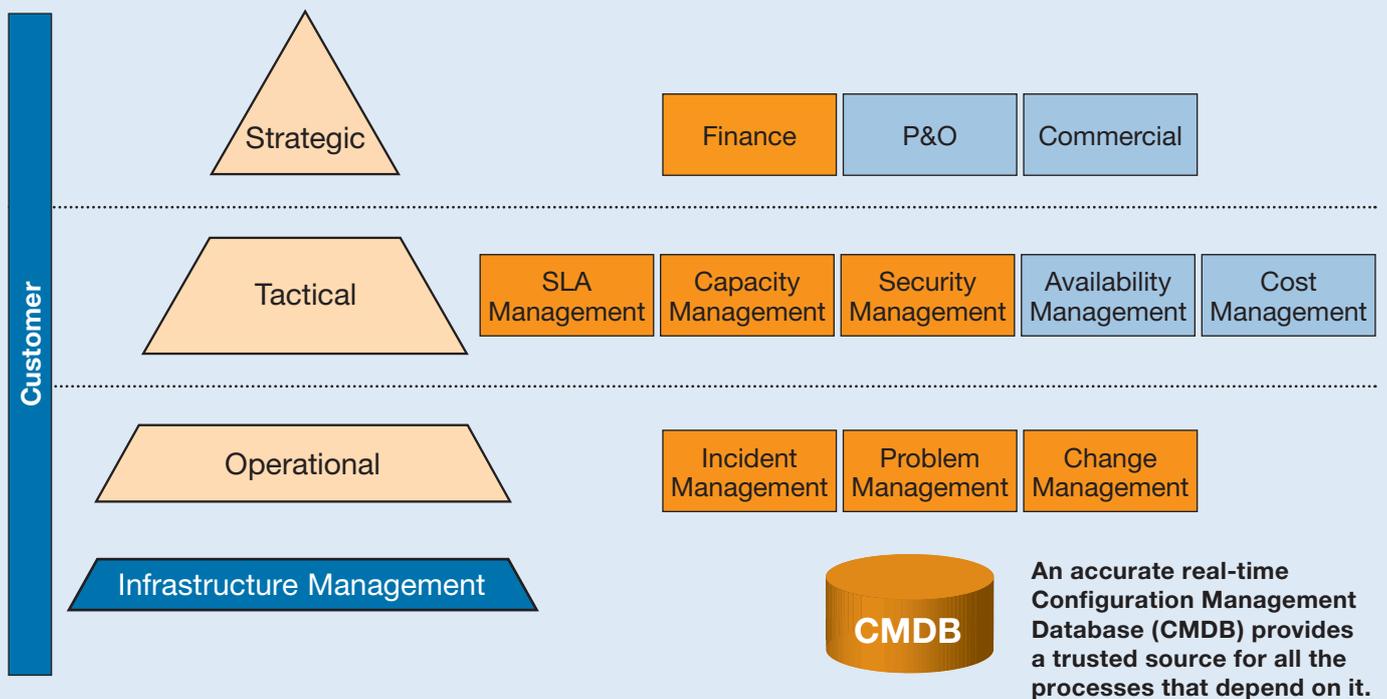
- Detection of all devices in the network
- Display and documentation of the physical end to end infrastructure
- Monitoring of all connections and events
- Detection, reporting, alarm and warning actions for all changes relating to devices, their physical connections and any link discontinuities
- Adds Layer 1 information to network management
- Adds Layer 1 information to device management

Why Intelligent Infrastructure Management Systems?

Successful IT increasingly depends on cooperation between different services and competencies within the IT department. In order to control these combined IT services, so-called IT processes have been developed and collected as **ITIL (IT Infrastructure Library)**, a framework of best practices for IT processes. As a vital part of ITIL, **IT Service Management** is recognized as the central organizational instrument for aligning IT with business processes and for controlling IT services according to customer needs.

The **international standard ISO/IEC 20000:2005** bridges the gap between ISO 9000:2000 (focusing on the setting up of IT quality management systems) and the successful implementation of IT service management according to the ITIL best practices. Moreover, it gives recommendations for the evolution of IT service management within organizations in order to raise the quality of service.

Best practices in projects all over the globe show the significant improvements offered by IIMS solutions using a combination of software and hardware in order to integrate the physical layer (the cabling infrastructure) into network management and other IT processes. AMP NETCONNECT's AMPTRAC is an outstanding example of those solutions.



At all levels in the IT service organization processes are defined. This simplified picture shows in **orange** the processes where AMPTRAC offers **high performance and savings**.

Why Intelligent Infrastructure Management Systems?

The Configuration Management Database (CMDB) enables IT and business experts to share timely and accurate information about their IT infrastructure and the business services it supports. A real-time and 100% accurate CMDB maximizes business productivity while reducing operator errors and hence IT costs.

Benefits operational processes

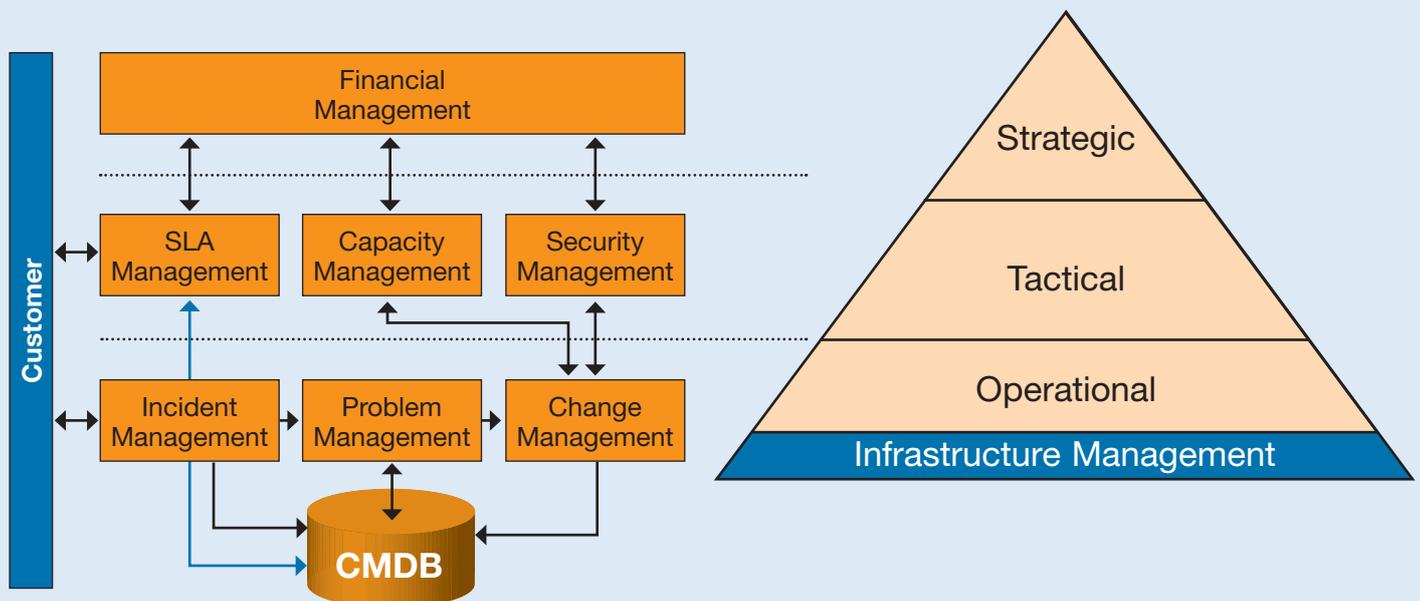
- Reducing troubleshooting in network related incidents, improving uptime
- Improving the correlation of multiple network related incidents
- Improving the network related change process and impact analysis

Benefits tactical processes

- Improving Service Delivery through Active Management Coordination and Planning
- Improving capacity planning by providing a real-time capacity overview
- Improving physical security by real-time detection of unauthorized devices and physical changes

Benefits strategic processes

- Better SLA (Service Level Agreement) agreement, less down time, smooth processes
- Better control of outsourced network related tasks, remote control



Configuration Management Enhancement using AMPTRAC

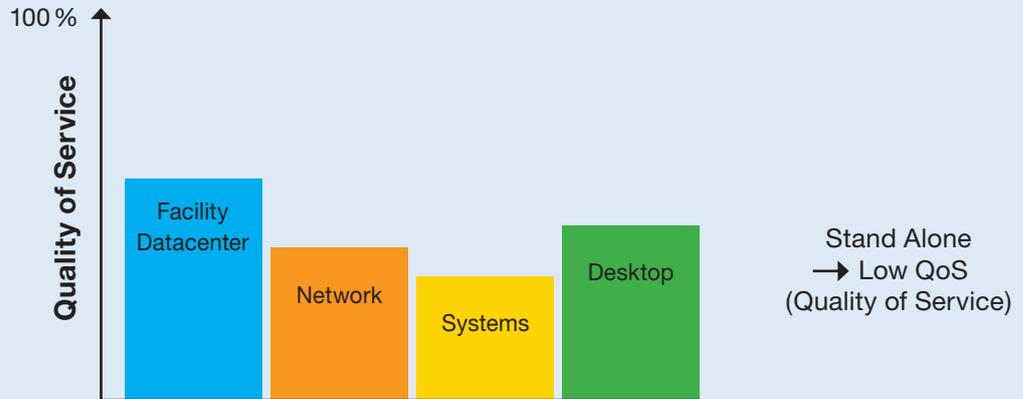
The overall purpose of the Configuration Management Database (CMDB) is to collect data about all assets and configurations and to offer this information to other IT processes. Hence, the CMDB is a logical image of the IT infrastructure. **AMPTRAC** supports the CMDB by adding real-time connectivity and networking device information

Why Intelligent Infrastructure Management Systems?

IT Service Management and Products

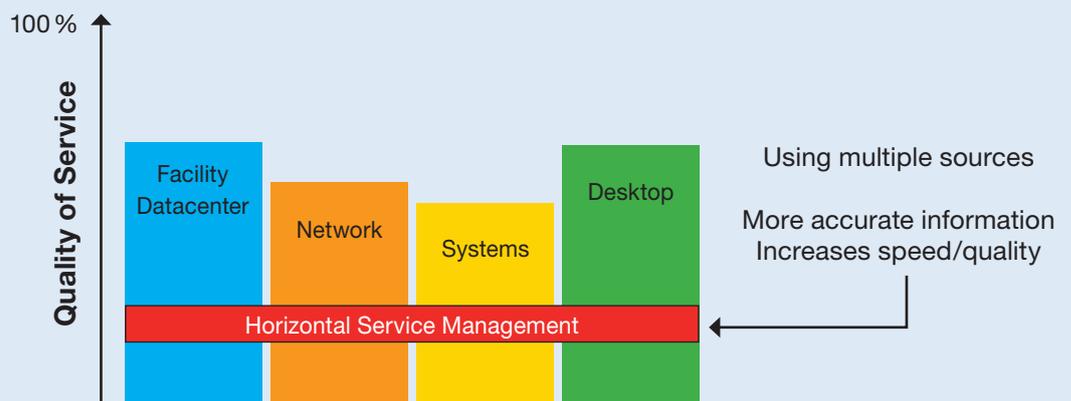
In the past organizations procured vertical solutions to solve one particular problem without regard to related issues. Such solutions are still widely used to fix a problem or implement a new service quickly.

More and more vertical solutions to support demanding customers and to stay in control of their infrastructure and processes.



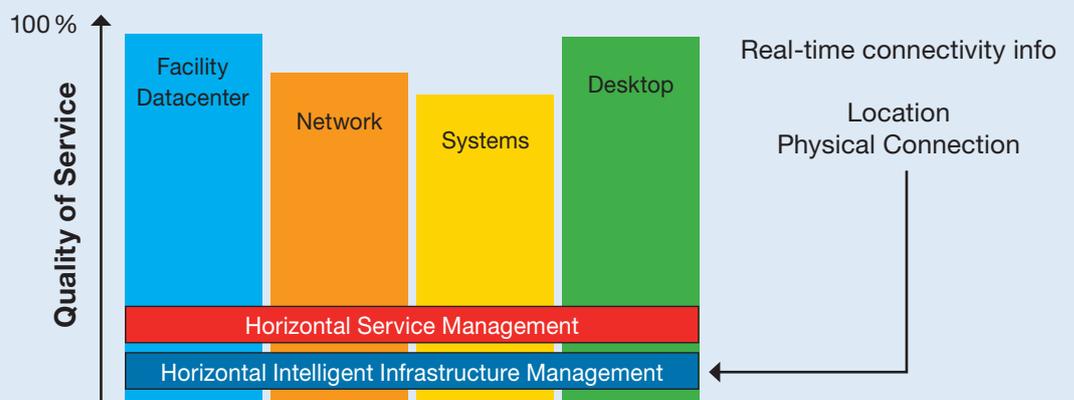
Today organizations sell services rather than techniques, hence from a service management point of view there is a need to integrate the vertical solutions, and this is where ITIL comes in.

Adding horizontal service management can improve the quality and speed of services by more than 40%.



The same goes for the infrastructure; it's not an asset under the sole responsibility of facility management but needs to be available, both physically and as documentation, as a horizontal solution across all vertical disciplines.

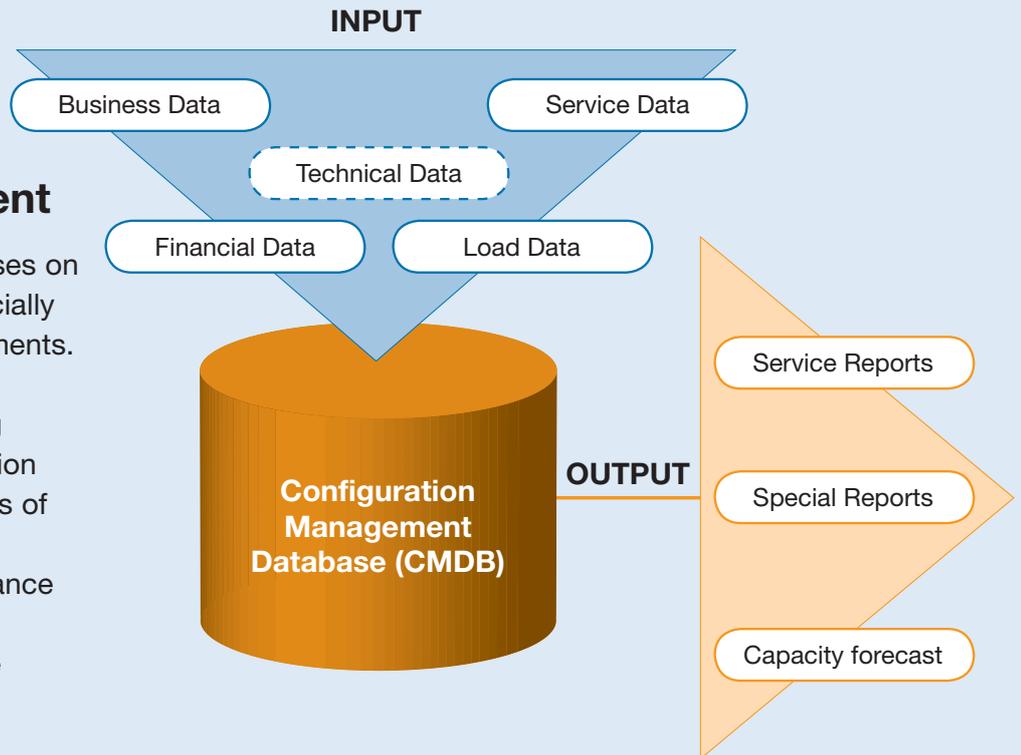
Adding Intelligent Infrastructure Management can improve the quality and speed of services by more than 40%.



Capacity Management

IT Capacity Management focuses on and assures today's and especially tomorrow's IT capacity requirements. The main targets are:

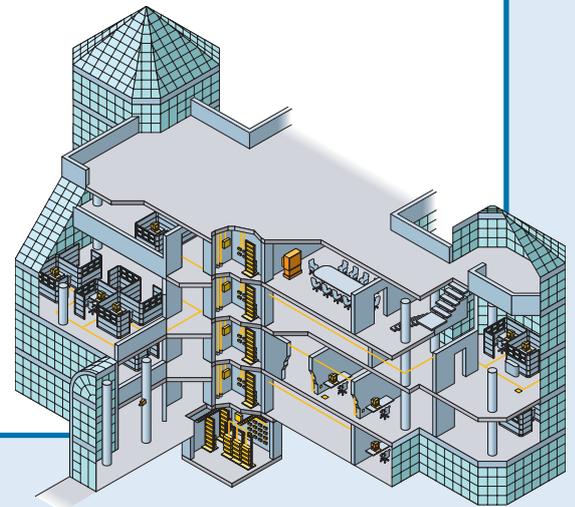
- Economic capacity planning
- Services capacity preservation
- Projection and trend analysis of capacity utilization
- Analysis of service performance & throughput
- Conflict management where resources are shared



AMPTRAC Enhanced Security features

The objective of the AMPTRAC enhanced security features is to augment existing security systems with real-time, location specific information.

- Identification and location of unauthorized network access (iDiscover)
- Theft Control – traceable information in the log file. Contains time stamped events that can be searched e.g. at what time an asset disappeared from the network
- Cameras – to capture unauthorized patching events
- Restriction of login to the network defined physical locations (iLogin)



AMPTRAC adds value to IT related financial services

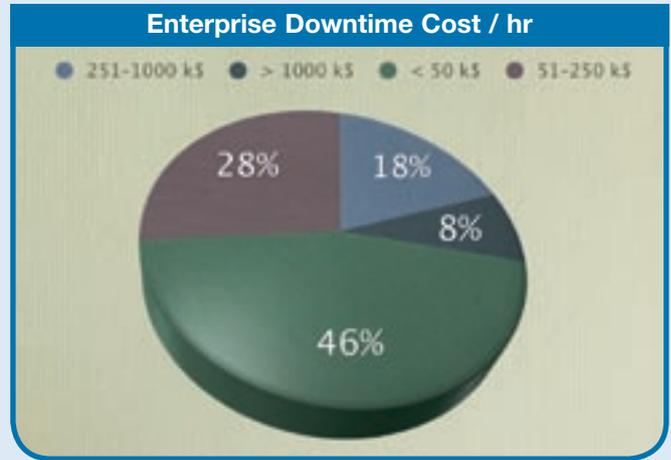
- By adding fully automated, real-time asset location information
- By providing a searchable, reportable log of what has happened to assets over their lifetime
- 100% accurate information about cost center, user name and switch ports
- Delivering recharges via asset register information, SLA monitoring
- Customizable reporting (combined with dictionaries)
- Instant audit

Note: The actual set of features depends on the purchased software version.

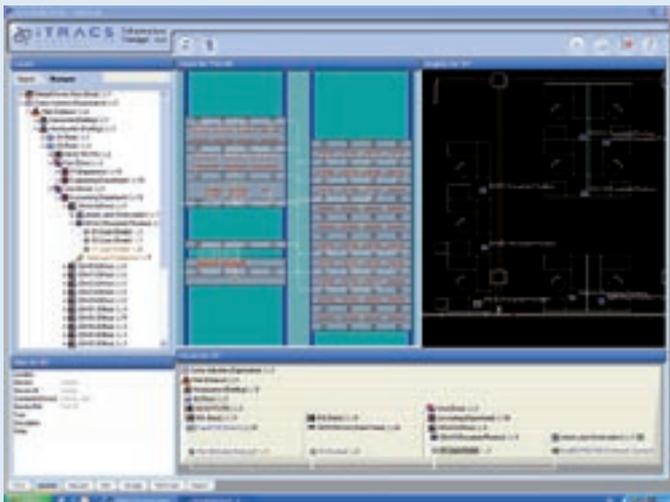
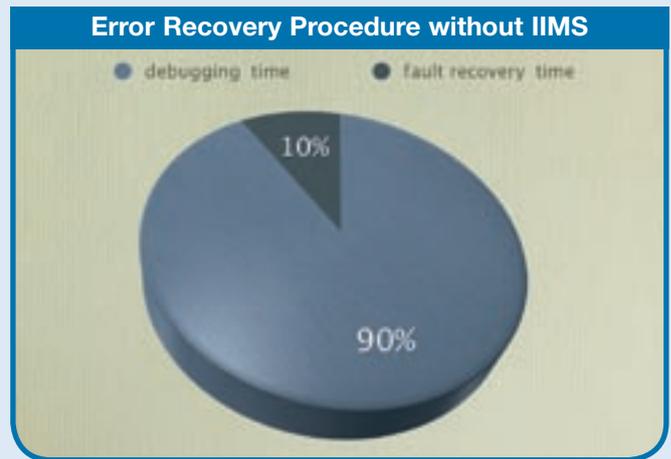
Real-time Overview & Documentation are Key

In many industries data network down time is business critical! Depending on the importance of the network as a daily business tool, hourly costs can be extremely high (e.g. in banking and insurance, airports, ISP's, etc)

- “**72%** of all business critical systems experience **9 hours** of down time each year!”
(The Standish Group)
- “There’s an average loss of **\$90,000 per hour** of down time for business critical systems!”
(Contingency Planning Research)
- “**59%** of network problems are directly related to the **physical infrastructure** and its connections!”
(The Gartner Group)
- “**70%** of all network failures are attributable to **network cabling!**”
(LAN Technology)



Source: Eagle Rock Alliance (Contingency Planning Research) - 2001 Cost of Downtime - Online Survey



The solution: accurate, reliable documentation by **AMPTRAC** helps to recover from any problem as quickly as possible by **greatly reducing the debugging time.**

Structured cabling systems don't break down. They simply get out of control!

The extensive feature list of AMPTRAC IIMS

AMPTRAC allows enterprises better planning and control of all network infrastructure related issues:

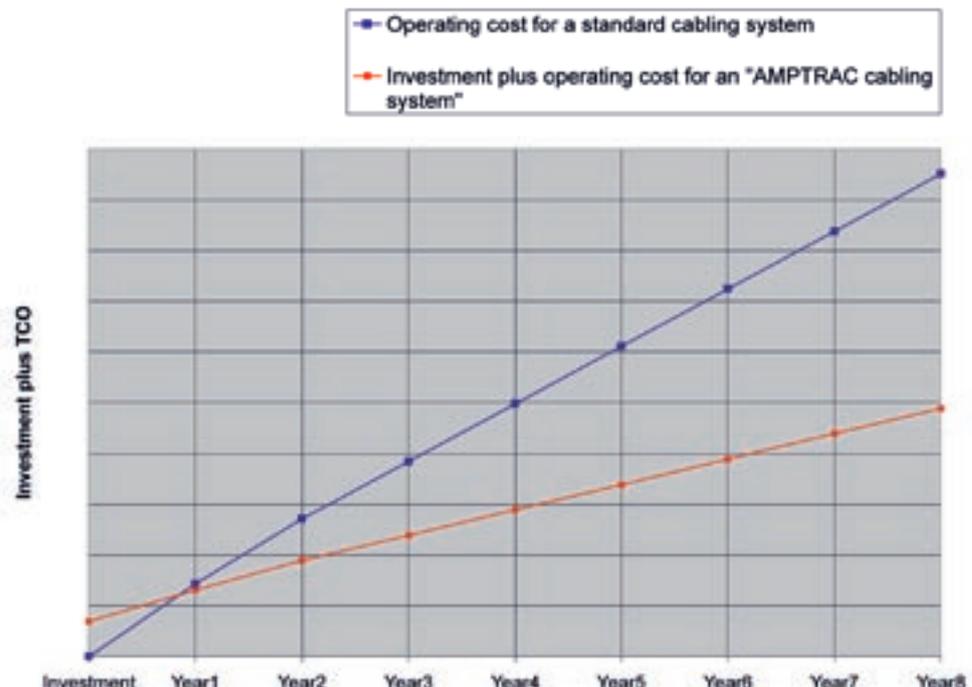
- Taking the guesswork out of troubleshooting and moves, adds & changes (MAC's)
- Reducing the consequences of mistakes
- Identifying used and spare ports (in switches and hubs) in LAN electronics and patch panels
- Centralizing infrastructure management

All these advantages result in significant saving of operating costs:

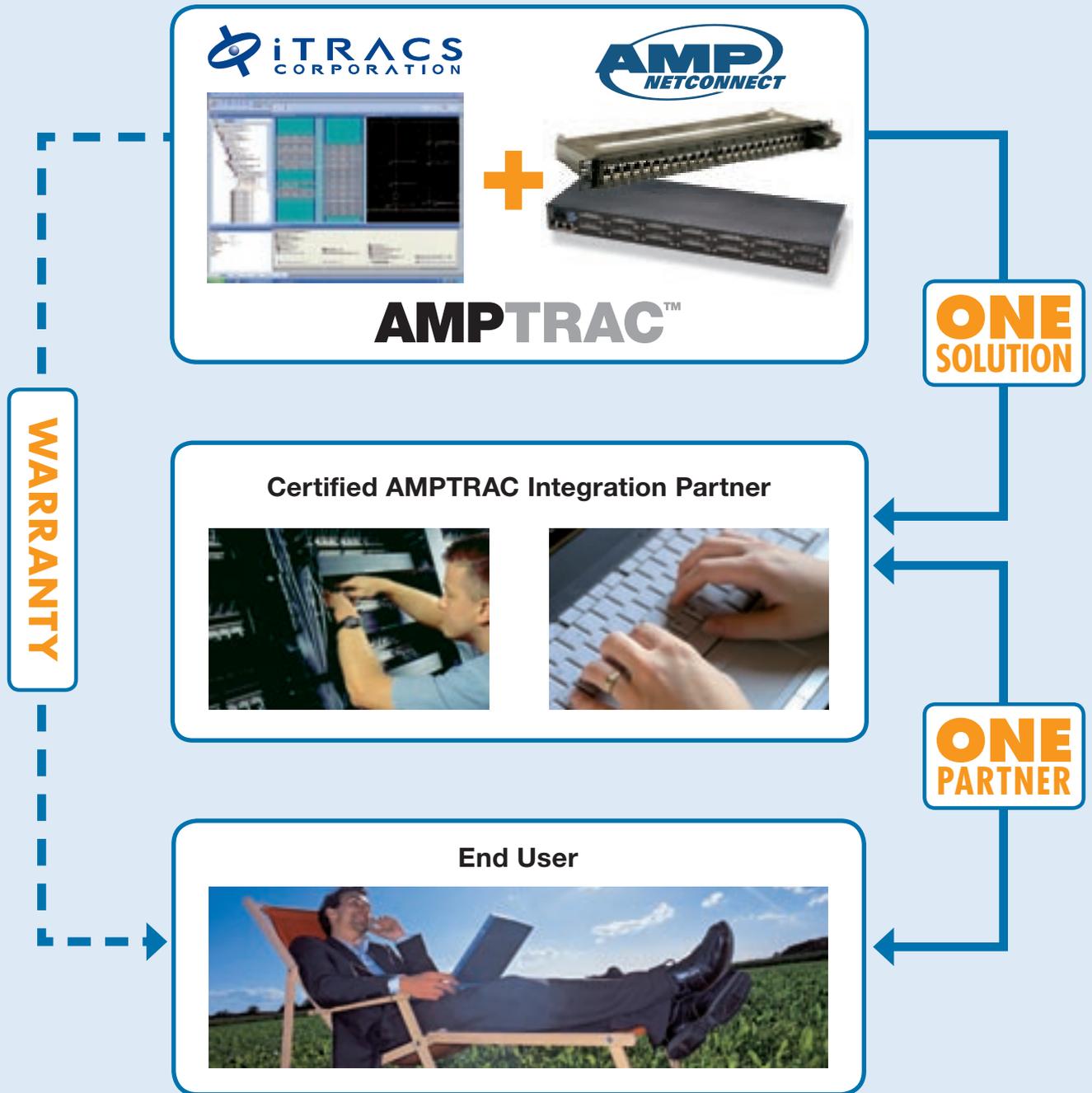
- Reduces operating cost by 15–30% by reducing required time to perform each MAC. (avg. MAC change – 30 min; AMPTRAC can save 10 min per MAC)
- Reduces operating cost by 1–10% by increasing existing network investment utilization
 - Standard cabling system port utilization: 85–90%
 - AMPTRAC port utilization: 100%
 - Reduces trouble call repair time to an average of 50% by cutting diagnostics time to a minimum

Get your money back in less than 2 years!

(in most cases)



AMPTRAC Integration Partner Network



Why use the AMPTRAC Intelligent Infrastructure Management System?

The AMPTRAC Infrastructure Manager bridges the gap between Network Management Software and Physical Layer Management, and concurrently revolutionizes the way networks are controlled and managed. AMPTRAC IM illustratively shows the physical topology of your data center, communication rooms and wiring closets, while at the same time helping you to manage and troubleshoot your network connectivity with real-time monitoring and documentation.

Among the many benefits of the AMPTRAC System are:

- the increase of MAC accuracy and productivity
- the reduction of downtime
- the increase of network security
- the reduction of costly mistakes
- the improvement of asset utilization

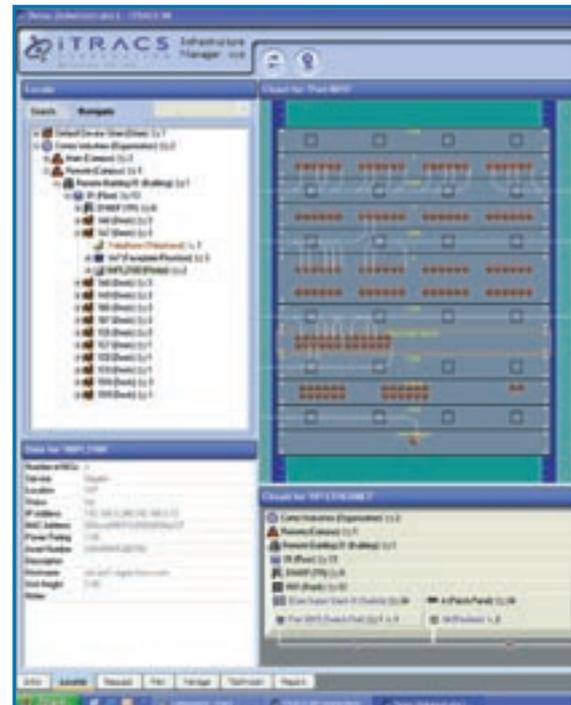
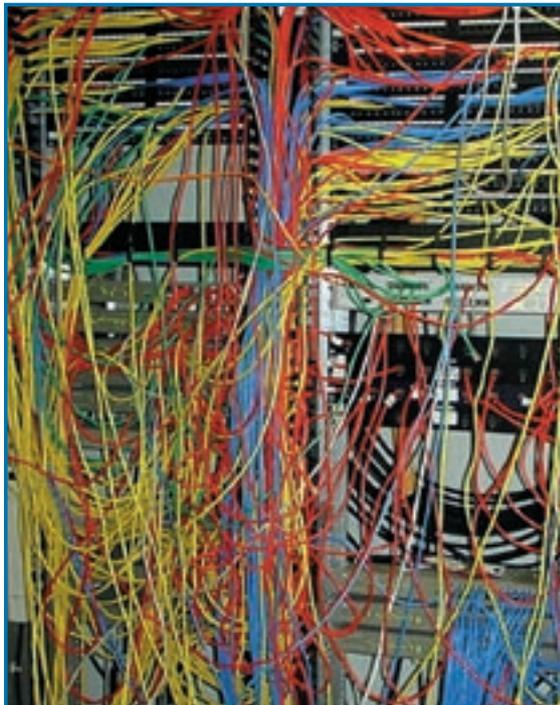


Or simply said, turn

THIS

into

THAT!



Take the Guess Work Out of Your MACs

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