

Telcordia® Network Engineer

Telcordia® Network Engineer is the world's leading GIS-based system for planning, designing, engineering, and documenting complex communications networks. Built on the ESRI® ArcGIS® platform, it provides a centralized geospatial environment for managing all networks — wireline, mobile, cable, and converged IP. With real-time, accurate network views, service providers can streamline engineering and construction operations, accelerate revenue realization through faster network builds, and avoid unnecessary capital expenditures.

► Networks are becoming extremely complex. Operators have to mix and manage more and more technologies, including Fiber To The X (FTTx), IP, and Passive Optical Networks (PONs), in order to support the rush of new services, such as Triple Play, Voice over IP (VoIP), IPTV, and Metro Ethernet. As a result, the need for a planning and engineering system that can support any network, any technology, and any type of equipment — right down to the individual glass fiber — is critical. It is the key to knowing where customers are located, linking them to the network, and efficiently managing the quality of converged services.

PLAN, DESIGN, DOCUMENT, AND MANAGE MULTIPLE NETWORK TECHNOLOGIES

Network Engineer is an open, scalable, geospatial system built to handle any multivendor, multitechnology infrastructure. It is the ideal solution for new system implementations, or to replace or supplement existing systems whose capabilities are rapidly being exhausted.

001

Plan, design, document, and manage multiple network technologies

002

Manage inside and outside plant facilities, and streamline work order management

003

Establish seamless data flowthrough upstream and downstream

Network Engineer utilizes a sophisticated geodatabase, which houses all network and physical inventory information. This database serves as a centralized repository to facilitate real-time, flowthrough network and service provisioning, allowing providers to maximize network resources, improve customer satisfaction, increase data flow, and achieve operational efficiency. By keeping track of as-built information, as well as planned network views, the system also improves the performance of many other key functions, including procurement, planning, provisioning, engineering, operations, workforce management, and service assurance.

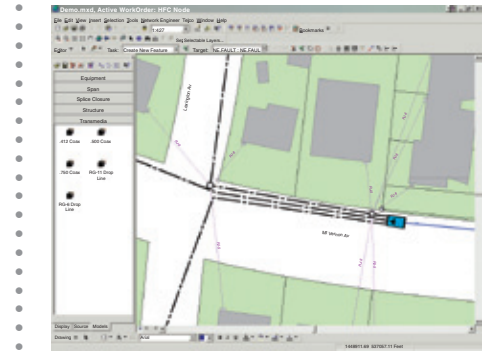
Within its superior graphical environment, Network Engineer combines network and land-based information into a single view so planners can visualize equipment, capacity, available bandwidth, demographics, and customer information, all through attribute, spatial, or thematic queries.

IMPROVE WORK ORDER MANAGEMENT: PLANNING TO BUILD-OUT

The system's built-in Work Order Manager is a sophisticated, easy-to-use project management tool used to document and generate any network change, such as a build, removal, or rearrangement of the network. It can maintain:

- Work order schematics showing the physical layout of the work
- Bills of materials used in the procurement process
- Supporting information such as field notes, right-of-way information, and/or special conditions
- Costing information for required time and materials
- Acceptance test criteria for network performance, and the timing and sequencing of work
- Approvals at various stages of network design and construction
- As-built reports that document final details of completed work.

Engineers can configure the transitions, status, and overall workflow, and conduct “what-if” scenarios for individual jobs. In addition, complex version management allows multiple users to display and edit geographical data simultaneously.



Document end-to-end communications networks.

CASCADE DATA WITH NEW EFFICIENCY

As a central data repository with the ability to track current, historical, and planned inventory and layouts, Network Engineer facilitates data flow between Operations Support Systems (OSSs) and across functional areas. The result is that up-to-date data views are not only accessible to engineers, but also to strategic planning, sales, and marketing departments; field crews; call-before-you-dig centers; Web users; and management. Better collaboration and real-time data sharing can lead to major improvements in flowthrough provisioning, service assurance, procurement, and workforce management.

ENHANCE SYSTEM UTILITY WITH VALUE-ADD MODULES

The power and capabilities of Network Engineer can be expanded even more with the following five optional modules:

Design Assistant

Design Assistant fills the experience gaps among your designers and engineers, and automates many of the most time-consuming tasks in network design, by allowing your lead designer to program process steps and incorporate guidelines into the module's online wizards. Once a rule set is saved, any planner can use it to build a new plan. This powerful module helps to ensure that all design work is fast, cost-efficient, and consistent with your corporate policies.

Analyst

Analyst makes network data accessible to executives, managers, contractors, and sales and marketing staffs for viewing, querying, analyzing, and reporting. This useful tool helps users find the best locations for development, evaluate plans for future build-outs, approve work orders, and analyze maintenance and build-out costs.

Schematic Assistant

Schematic Assistant evaluates locations within a geographical space by providing multiple, on-demand views of the same network objects. It manages all types of graphical representations, including diagrams, trees, and matrices. It also has display optimization mechanisms that let you manipulate overlaid objects, automate routing, zoom in and out, duplicate views, re-size images, and more.

Integration Assistant

Integration Assistant is a configuration module that allows Network Engineer to interface with any external provisioning and inventory system. It is a key enabler of flowthrough provisioning, because it lets operators integrate Network Engineer's physical planning capabilities with a provisioning and service solution. By combining physical planning and service provisioning processes, operators can achieve substantial improvements in operational efficiency, faster provisioning for new services, and reduced error rates.

• THE TELCORDIA PLANNING & ENGINEERING SUITE

- The Telcordia Planning & Engineering Suite provides a geospatial platform for planning, designing, documenting, and sharing information on complex communications networks.
- Anchored by Telcordia® Network Engineer, the suite gives you a comprehensive enterprise-wide view of the network so you can bridge your network engineering intelligence with network operations, provisioning, marketing, and finance to deliver accurate information quickly while streamlining cost and service delivery intervals.



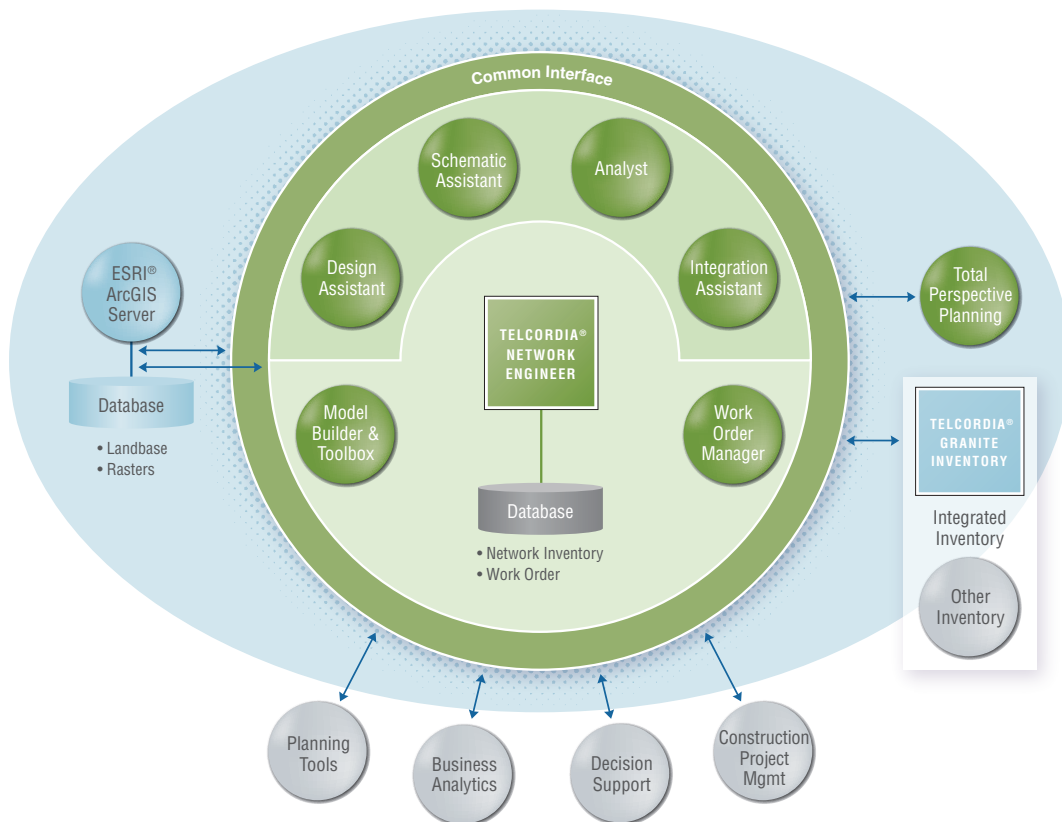
Total Perspective Planning

With Total Perspective Planning, non-technical decision makers across the company can use the web to easily view the relationships between the network and other relevant information. It provides a “mash-up” of information not only about the infrastructure, equipment room space, capacity, and current-and-planned network, but also about markets, demographics, revenue potential, weather, and more. It allows users to see data in revealing geographic patterns that help to quantify market potential, qualify customers for service, analyze fault patterns, and plan for network resiliency.

MODEL THE BUSINESS PROCESSES THAT SUPPORT NEW SERVICES AND TECHNOLOGIES

Network Engineer’s extensible data model is the foundation for its flexibility and functionality. Business rules, objects, and reference data enable business process modeling, development of equipment model libraries, and system configurations to support any technology and service. Built on the ESRI platform with open Application Programming Interfaces (APIs), it can be easily configured and integrated into your environment, so you can quickly start to realize maximum benefits from your network resources, save major planning and engineering costs, and improve both operational efficiency and financial reporting.

Network Engineer Modules & Architecture



MANAGE BOTH INSIDE AND OUTSIDE PLANT FACILITIES WITH ONE SYSTEM

With the ability to document both inside and outside plant equipment, operators can generate end-to-end models of their entire network infrastructures and greatly facilitate network design. This one system manages physical cable and equipment connections and attributes all the way down to the strand, pair, or port level.

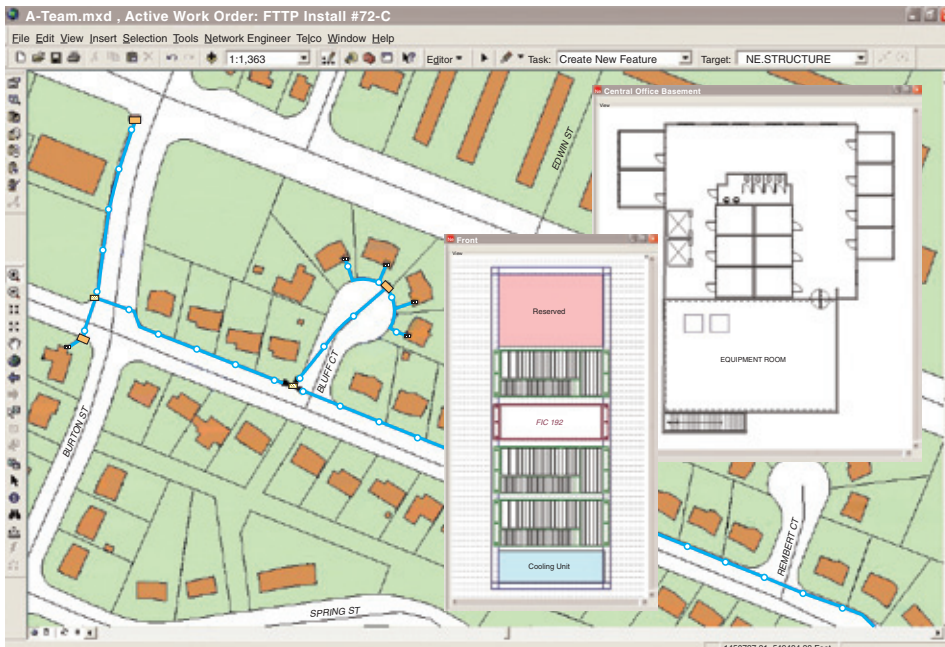
To oversee inside plant facilities, a graphical editor lets users document and associate inventory with network structures, and easily manage available floor space, rack footprints, equipment-to-rack relationships, and card-to-equipment-slot relationships. In addition, Model Builder, a tool for creating and maintaining equipment catalogs, lets planners save model palettes for placement into new designs. It also increases design productivity with drag-and-drop functionality, and drives compliance with company standard designs.

The system's outside plant management functions let users document, place, and edit connected network inventory through ESRI ArcGIS, and include network spans, structures, transmedia (wireline, mobility, copper, coaxial cables, fiber), and equipment. All network elements and related structures can be placed in connected networks of transmedia, which are recorded in a work order for utilization by construction personnel.

AT A GLANCE

Telcordia Network Engineer prepares you for converged services by giving you the ability to:

- Design, engineer, and manage your network — both inside and outside facilities — from one geospatial environment
- Manage virtually any combination of network technologies
- Automate and manage work order flow for superior customer service
- Accelerate data sharing between systems and functional areas to improve internal coordination, boost productivity, and speed time-to-market for services
- Support financial reporting, including Sarbanes-Oxley compliance, and avoid unnecessary capital expenditures with more accurate, up-to-the-minute network oversight.



Within Network Engineer, inside plant elements are instances of the same data model that supports outside plant elements; each is integrated throughout Network Engineer functionality.

CONFIGURE THE SYSTEM TO MEET YOUR NEEDS, ADHERE TO YOUR STANDARDS

The Network Engineer Toolbox enables systems administrators to use intelligent wizards to create system configurations without code development. The Toolbox is used to assign security levels to users, set system defaults for a common look-and-feel, set work order options, and specify rules for consistent workflow.

IMPLEMENT AND OPERATE WITH PEACE OF MIND

Telcordia not only provides extensive support during implementation, but also is available to you for ongoing consulting to help keep your network operating at peak performance. Our world-class experts are ready to support your geospatial investments with services that include GIS consulting, project management, systems implementation and integration, legacy system and data migration, custom application development, and expertise on ESRI ArcGIS technology.

GET IT RIGHT

- With the expertise to
- solve the world's most
- complex communications
- challenges, Telcordia is
- known for helping its customers
- get it right so they can reap the
- greatest business benefits. Our
- Planning & Engineering Suite is
- part of our broad offering of products
- and services designed to help you
- operate more efficiently, drive
- revenues, and deploy innovative
- new services.



.....
For more information about Telcordia Technologies, contact your local account executive, or you can reach us at:

+ 1 800.521.2673 (U.S. and Canada)

+44 (0)1276 515515 (Europe)

+1 732.699.5800 (all other countries)

info@telcordia.com

www.telcordia.com

ESRI, ArcGIS, ArcIMS, and ArcSDE are registered trademarks of Environmental Systems Research, Inc.

Copyright ©2011
Telcordia Technologies, Inc.
All rights reserved.

MC-ENG-BR-008-3