

**Whitepaper**

**Return on Investment:**  
The Case for an Intelligent Organizational Charting Solution



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## Executive Summary

Organizations exist in an ever changing world. They need to be able to evolve rapidly to react to market risks and opportunities. This demand requires that they have at their fingertips, a holistic, unified view of their workforce, and the tools to move quickly to plan and execute on future workforce scenarios.

Similarly, organizations change daily, in part from reorganizations or growth, in part from the mobility of their employees. Employees need a way to navigate the organizational structure, to understand their role and to quickly find information and resources they need to be effective.

Most organizations solve this requirement in a highly manual, disconnected and inaccurate way, through the use of manually created organizational charts and spreadsheets. This is an expensive, imperfect and inefficient process.

New technology is now available that solves the problems of creating real-time, unified charts, delivers analytics about the organization and its key performance metrics, and provides intuitive tools to plan for the future—intelligent organizational charts.

The return on investment of such technology is significant, with payback periods of just a few months after such a system is implemented, from increased productivity and reduced planning costs.

Most importantly, intelligent organizational charting technology enables organizations to react far more quickly to opportunities and threats as they arise, which benefit needs to be measured in opportunity cost terms, rather than as a traditional ROI.

## The Business Challenge

### **Managing Organizational Change**

Very few organizations are static. In a turbulent global economy, with rapidly evolving technology and fast-moving political and social trends, the ability of an organization to change is a key requirement to compete and survive.

Management has to be nimble to respond quickly to threats and opportunities, and they need to rapidly mobilize their workforces to execute on changing business strategies. To do this, they need the ability to instantly assess how their human capital is deployed, as well as to rapidly plan responses to changing market conditions.

At the same time, employees need to be able to understand and navigate the changing organizational structure to be able to effectively communicate, collaborate and plan. Employee orientation, career and succession planning, as well as finding, understanding and marshalling resources are everyday organizational requirements that need to be filled.

Human resources need to understand and track the key human capital metrics that affect business performance and risk, monitor how they are changing and prepare the workforce for the future.

However, with the complexity of geographically dispersed data across disparate ERP and other information systems, having a real-time, global view of the workforce can be a challenge. Basic employee information is often maintained in different HR and ERP systems, while other important information for workforce decisions is stored in point solutions such as sales, cost center, performance management or succession planning systems.

Without a system for planning for change, supported by relevant, accurate and timely information, fast and accurate decisions about how to deploy and plan for an organization's human capital are often not achieved. Valuable time is wasted by employees who cannot efficiently collaborate, and human resources is ill-equipped to manage or to advise the executive branch on the greater human capital picture.

### **How it is Being Done Today: The Problem with Current Systems.**

Organization charts are the traditional tool for representing and managing the structure of an organization. But most organizations today are still challenged with many of the limitations of manual charting and do not yet have an automated system for creating and managing organizational charts.

Current systems are characterized by the following attributes:

- **Charts are created manually**  
PowerPoint and Visio, or simple drawing software, are still the most frequently used tools for creating charts, confirming that this is still a highly manual process. PowerPoint charts are completely manual, while Visio has rudimentary ability to create simple charts from a data source. Such charts

are not easily maintainable however, and very quickly consume large amounts of time to format, update and distribute. These tools are not suitable for charts containing more than 30-50 boxes.

- **Chart data is discrete and disconnected from the enterprise information system**  
Because these tools are file based, there is no simple way to collaborate on charts or share their information in real-time.
- **Charts are inaccurate**  
As the chart creation process is manual, they represent a point-in-time that is generally out-of-date within a short period.
- **Charts are expensive to create and maintain**  
Because these processes are manual, they are extremely expensive to create.
- **Chart data is simplistic**  
Because data collection is so laborious, manual charts rarely have more than the most basic information, such as employee name and title, and do not contain other important employee information or overall branch or company analytics.
- **Chart data cannot be accessed**  
In the case of PowerPoint and most drawing programs, the data in the org chart is not stored in an accessible database, and does not therefore lend itself to analysis, navigation or reporting. In the case of Visio, which does have an underlying database, such data cannot be accessed without complex programming, and the software functionality is not optimized for data navigation or reporting.
- **Charts are not secure**  
PowerPoint and Visio charts are generally printed or emailed. As such, any sensitive information is at risk of falling into unauthorized hands, or because of this limitation, only non-sensitive information is charted.
- **Chart data is for visual consumption only**  
Output is typically just a visual chart or printout; neither the software nor the data can be used for more than rudimentary planning or scenario building.

With these limitations, it is easy to understand why most organizations have given up creating organizational charts—the manual process is too time-consuming, incomplete and expensive, or organizations limp along with a semi-automated system that requires high degrees of management and manual intervention, with often inaccurate or unsatisfying results. Such organizations have much to gain from implementing an automated charting and modeling system.

## The Solution

To solve this challenge, organizations need effective, intelligent organizational charting technology that can provide the following:

- a unified, real-time, secure and accurate view of the organization, incorporating information from different systems;
- insightful analytics regarding key business and human resource drivers;
- an easy-to-use platform for planning and actioning change, based on organizational goals and strategy.

### *Obtaining a Real-Time Unified View of the Organization*

#### **Represents All Employees**

In large enterprises, all of the employee data is often not stored in the same database or ERP system. Companies that have grown through consolidation or without a strong centralized HRIS function often manage data in disparate systems, while outsourced employees, contractors, open positions, matrixed employees and project teams are often not represented at all in the source HR system and may only exist in a spreadsheet or offline system. An intelligent organizational charting system is able to dynamically merge these different data structures together to represent a single unified view.

#### **Validates Data Accuracy**

Many organizations have discovered that once the ERP data is socialized with the employee or manager population, many inaccuracies exist in the source system data. Only by making it available to relevant employees, is there an opportunity to discover and correct such bad data. Common data integrity examples include incorrect reporting relationships, employees no longer with the organization, or incorrect titles or other employee information. Distributing employee data via the organization chart results in much cleaner data, as the problem of data validation and correction is distributed to the source.

Organizations in the process of converting to a new HR system, or implementing reporting relationship or position management features of their ERP system have found that the process of collecting, validating and uploading information is significantly shortened and enhanced using an organizational charting system.

#### **Extending the Edge of ERP Systems: A Cost Effective and Secure Data Distribution System**

Purchasing licenses for and training managers and employees on ERP systems can be extremely expensive and time-consuming. Intelligent organization charts provide an easy way to distribute information to managers and employees from an ERP system. The data can be refreshed as often as required, and is completely secure as the org chart system inherits security directly from the ERP system.

**Extends Employee Information**

While the source HR system may contain all of the transactional data relating to an employee, such as salary, tenure and geographic location, important information for decision-making is often stored in point solutions for sales, performance management or succession planning. This information needs to be consolidated with the HR system information to provide a holistic view of an employee or department for organizational metrics.

**Ensures Data is Secure**

The above information is delivered in a secure fashion that respects the access privileges that have been established in the source system, without the need to manage security in a separate system.

**Provides Access to Information**

Once the data is available securely, employees have the ability to access it in a number of ways, by drilling down through the organization, panning and zooming on specific areas, searching on any criteria, or viewing lists based on a sort or filtering parameter. Extended information on any employee, branch or organizational unit is available on demand.

**Provides Portability of Information**

With appropriate security privileges, employees are able to extract organizational information for further communication and analysis. Integration with PowerPoint, Word, Excel and Adobe Acrobat is important as these are formats commonly used for inter-office communications. However, Reader software is also available which allows the org charts to be taken offline, whilst preserving all the meta-data stored in the chart, which is then available for query, reporting and navigation. Such files can then be edited with desktop org charting software for further local planning activities.

**Meets Compliance Requirements**

An organization needs to be able to evaluate its structure in order to comply with regulations such as Sarbanes-Oxley. Being able to visually assess division of responsibilities, reporting relationships and chain of command are activities achieved with intelligent organizational charts.

## Rich Analytics of Workforce Data

In addition to being able to navigate and search HR data, intelligent organization charts provide integrated reporting, metrics and analyses. With this functionality, managers can study and understand areas of risk or opportunity.

Configurable parameters such as conditional formatting, grouping, and formula-based calculations are available in intelligent organization charts to reveal workforce metrics. The convenience of this integrated functionality means HR and department managers can routinely and effortlessly evaluate the workforce without having to access separate databases.

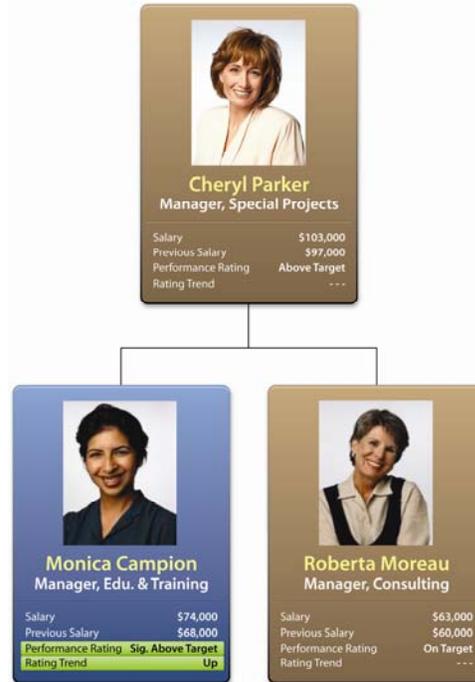


Fig. 1. Color-coded formatting provides instant visualization of areas in the workforce worth noting or reviewing.

### Monitors Risk

An effective approach to establishing an “early warning system” may include establishing a series of views in the chart. Calculating a monthly moving average for operational metrics and monitoring their deviation would allow a department to be compared to itself over time. Metrics such as Turnover, Worker Performance Reviews, Absenteeism, Training Compliance and Worker Injuries can be displayed via the intelligent organizational charting platform using a color-coded formatting of areas that might trigger an alert: green, yellow or red, depending on the organization’s “early warning” status. An early warning alert does not necessarily mean that negative events are occurring within the organization, only that a change has taken place which merits review. The early warning system can be developed using the standard features of an intelligent organization charting system at a small fraction of the time and cost to implement generic business intelligence solutions.

### **Intelligent Organizational Charting is a Superior Platform for HR Metrics**

Unlike spreadsheets, which are optimized to present and manipulate data in columns and rows, organizational charts are optimized for hierarchical data.

Hierarchical data, especially that relating to human resources, has specialized attributes, which if understood and utilized, have powerful implications for HR analytics.

Organizational charting software understands the meaning of a manager or co-manager, a branch, a subordinate, an assistant, a dual reporting relationship, a peer, or a level. This makes many important calculations easy, which would be very difficult or impossible to perform using a spreadsheet or traditional business intelligence tool.

For example, calculating average salary, for all non-managers between levels 3 and 7, in branches 1 and 2, excluding assistants, or contractors, but including part-time employees – would be quite simple using an intelligent organizational charting solution.

### **Reveals Opportunities**

Metrics reporting capabilities are not only used for averting risk—they can also be used to identify opportunities and plan for change. A succession plan analysis, for example, may include highlighting open positions based on certain criteria, the bench strengths of nominated candidates, and gaps between the base position competency and the nominee's competencies.

Bringing in HR data from virtually any source and merging them into one secure platform enables organizations to assess their workforce effectiveness in detail—and from every type of hierarchy including geography or cost center. From basic rollups such as headcount and salary, to more sophisticated metrics such as span of control and succession planning reports, an intelligent organization chart provides the knowledge necessary to drive the correct decisions, leading to reduced risk, and higher productivity and effectiveness.

## *Platform for Planning and Managing Change*

The organizational chart represents the current deployment of human capital to meet organizational objectives. When these objectives change, it is likely that the org chart needs to change as well. The technology platform not only provides real-time information, but also the tools for planning and actioning the decisions made.

Most companies begin this exercise by starting with the current organizational chart. By way of an interactive and iterative planning process with key stakeholders, a plan of action is created, which may result in new open positions, layoffs, movements, changes in reporting relationships, titles, location or compensation. Each one of these changes can be modeled efficiently by making changes to the current org chart using easy drag-and-drop tools. Various scenarios can then be created and compared.

### **Using your Key Performance Indicators as a Planning Tool**

HR departments routinely establish metrics that provide information on key performance areas of their human capital. Common indicators might be average salary, tenure, gender and diversity, turnover, absenteeism, productivity, competencies or readiness.

The intelligent organization charting system provides an easy platform to create and monitor such metrics in real-time.

A true workforce planning system goes further, however, giving HR professionals and managers the ability to establish and monitor KPI's based on scenarios for which they are planning. This enables managers to establish a set of constraints, or a dashboard, that dynamically updates as the planning process evolves, indicates when a threshold or constraint has been reached, and keeps the planning process within the established parameters or goals of the organization.

A planning platform can manage the following activities:

- Taking a snapshot of the current organization
- Creating constraints and goals for the planning activity
- Creating scenarios in collaboration with stakeholders
- Synchronizing scenarios with the source data to update for personnel changes during the planning process
- Comparing scenarios and resolving conflicts. For example, in a re-organization, a resource might have been selected by two planning managers
- Communicating to stakeholders. Once a plan has been decided on, it needs to be communicated. Typical documents that are generated would be a PowerPoint presentation for communicating changes to stakeholders; a

spreadsheet of financial and operational changes for budgeting purposes and a tabular report, or output file of all changes for Human Resources. The system should be able to generate these documents automatically

- Actioning changes back into the HR system via a manual or automated workflow and approval system

### Intelligent Organizational Charting Process Flow

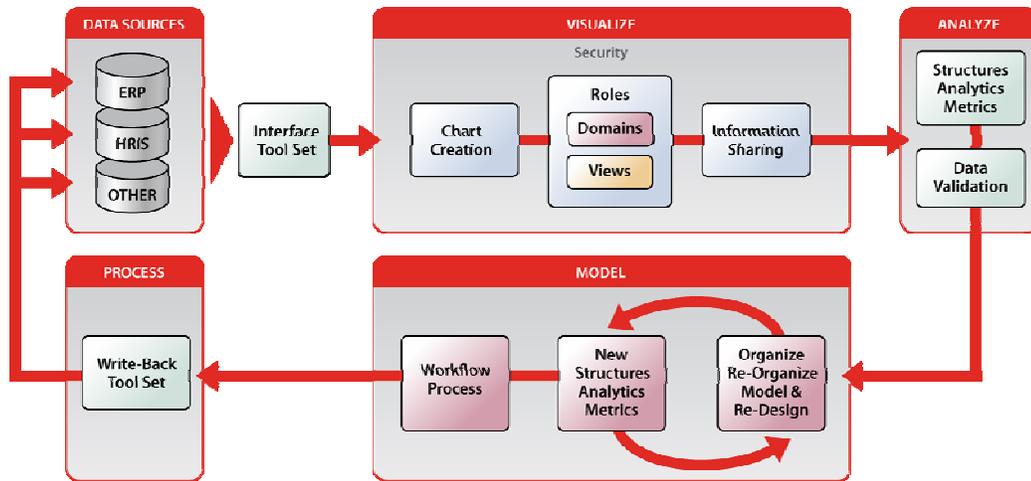


Fig 2. The intelligent organizational charting system first aggregates all the sources of data, provides visualization with the ability to analyze the data and modeling capabilities to affect change.

Management consultant F. John Rehs, who runs the PeopleAreCapital.com website writes in his About.com article [Organization Charts as a Management Tool](#), "[Traditional] Org charts are usually a reactive, rather than a proactive device. We have created an organization, or allowed one to evolve, and it has grown. It is no longer clear to the people within the organization, or to the people with whom they interact, who is responsible for what. A better option, however, is to craft an org chart that reflects where you want the organization to go, rather than simply reflects how it is now."

## Measuring Return on Investment

### *Direct Benefits of Intelligent Organizational Charting*

The intelligent organization chart is actually a powerful communication and planning solution that drives increased workforce productivity across the entire organization. It goes well beyond showing just a name and title of an employee—intelligent organization charts represent a new era in charting technology. They provide for visual communication of workforce information, visual access to HR metrics and serve as an electronic platform for planning and actioning workforce change.

### **Automated Chart Creation and Distribution**

Automation of the charting process results in considerable labor cost savings by eliminating the need for manual data-gathering and manual chart creation. Manually created charts are never entirely accurate, as change occurs during the data collection and chart creation process.

Automation allows for the secure access of up-to-date organization charts through an employee portal or company intranet on demand, through a web browser. Labor and print costs of manual distribution are eliminated. Unlike paper or static HTML charts, role-based and individual security levels restrict employees' access to sensitive information. Web-based solutions inherit or replicate pre-defined security from an HR or ERP system, making viewable data as secure as the source ERP system.

### **Increased Employee Productivity**

Productivity is enhanced when employees are empowered with information. Having an org chart and HR data at their fingertips allows employees and managers to be more effective and efficient. Experience has shown significant cost savings when employees have instant access to corporate directories, profiles, chain of command, workgroups, peers, new employees, and other organizational information. This data is relevant at all stages of the employee life cycle such as for on-boarding, career and succession planning. It is also valuable for everyday transactions such as finding a counterpart in another office, a manager's assistant, or an alternate contact in a department or project team. Powerful search, filtering and grouping features make it easy to find and communicate with any employee or group with a certain attribute, such as job title, skill set or location.

### **Enhanced Data Accuracy**

Making the HR data more visible will improve its accuracy and value. Providing an efficient mechanism to report and correct inaccuracies can provide significant savings.

### **Analytics Platform for Managing Risk and Opportunity**

Having a holistic, intuitive view of the workforce, together with a visual analytics and planning platform gives HR departments unprecedented ability to support executives and other stakeholders with the tools they need to drive and execute

business strategy. Preparing such analyses using spreadsheets or database tools is a time consuming process, and understanding the output is more complex.

The analytics functionality in an intelligent organizational charting system is extensive and includes the ability to

- format boxes based on either visible or underlying data. For example, all employees earning more than a certain amount or all contractors can be highlighted. This makes it easy to spot trends or clusters of data, or to quickly drill down to an employee or branch that is skewing specific metrics or averages.
- perform complex rollups and calculations based on chart data. As previously described, hierarchical data has specific attributes not found in tabular data, and being able to easily operate on such data drastically increases the ability to understand and manage the information.
- dynamically drill down, navigate, zoom or pan on any part of a chart.
- access extended information on any employee or department, via hotspots, reports or profiles.

#### **Reduced Planning Time; Better Planning Process**

Return on investment can be measured from direct savings as a result of automating manual planning processes. Opportunity cost savings result from shortened planning cycles and faster reaction time to critical business decisions.

## Direct Savings: Automation and Productivity Gains from Intelligent Organizational Charting

ANNUAL ESTIMATES	STAFF	PLANNING MANAGERS	DIRECTORS & ABOVE	TOTAL
<b>Chart Creation and Distribution</b>				
Number of personnel involved in data collection and chart creation	21			21
Number of times charts are updated each year	4			4
Average hours OrgPlus saves creating/updating charts	8			8
<b>Total</b>	<b>672</b>			<b>672</b>
<b>Training &amp; Communication</b>				
Hours OrgPlus saves toward new employee orientation	5	5	5	15
Number of yearly queries per employee for all employees	24	24	24	72
Minutes saved per query	3	3	3	9
<b>Total</b>	<b>2,009</b>	<b>108</b>	<b>43</b>	<b>2,160</b>
<b>Data Gathering &amp; Analysis</b>				
Number of times analytics are performed each year		12	12	24
Average number of hours OrgPlus saves towards collecting data		2	1	3
<b>Total</b>		<b>1,260</b>	<b>252</b>	<b>1,512</b>
<b>Data Gathering &amp; Planning</b>				
Number of workforce budget reviews and forecasting		4	4	8
Hours OrgPlus saves towards data collection and planning		4	1	5
Number of workforce planning initiatives		2	2	4
Hours OrgPlus saves towards data collection and planning		8	2	10
<b>Total</b>		<b>1,680</b>	<b>168</b>	<b>1,848</b>

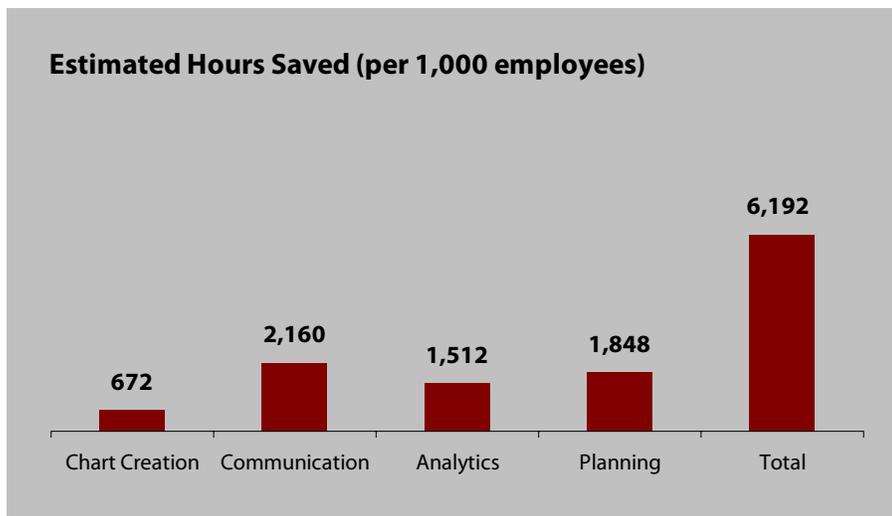
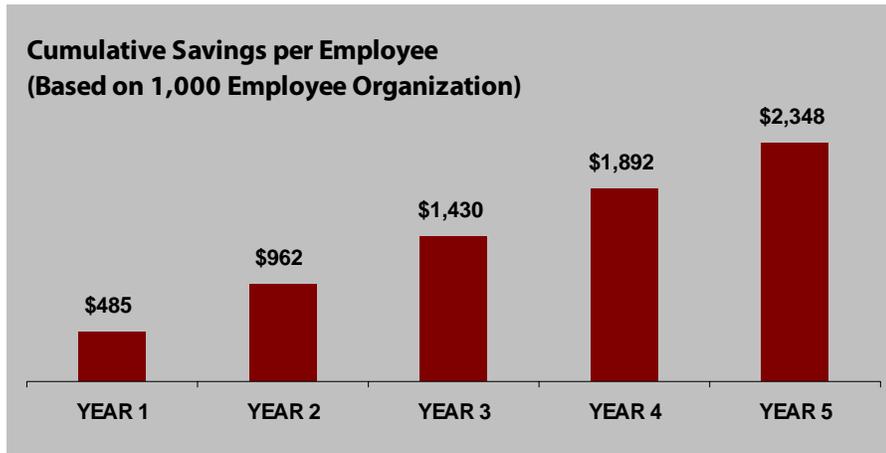


Fig 4. The above charts illustrate the potential time savings from an intelligent organizational charting system per year, per 1,000 employees in an organization. Estimates for personnel creating charts are based on 1 in 50 total employees.



*Fig. 5. Time savings translates into real dollar savings. Over time, the cumulative benefits of intelligent organizational charting can save organizations millions of dollars.*

### *Indirect Benefits of Intelligent Organizational Charting: Shortened Planning Cycles; Faster Reaction Time*

While the previous charts quantify readily measurable savings from automating existing business processes, user experience has shown that by far the greatest benefit to an organization comes from the less quantifiable area of opportunity cost.

Opportunity cost presents itself when an organization is more rapidly able to adapt to a new market condition, be it an opportunity or a threat. Circumstances that prompt an organization to reflect upon its structure are more often than not mission-critical to the organization's health, if not its survival. Typical examples are new business opportunities and initiatives, organic growth and acquisitions, or frequently, reorganizations and downsizings. In such cases, time is of the essence.

Whether the business case arises from reacting to a competitive threat by ramping up a product team, or moving swiftly to cut costs and reorganize in the face of major losses—lost time means lost opportunity, or even the difference between success and failure.

In such cases, traditional return on investment models have little meaning relative to the priceless business imperative of rapid response. When called upon to rapidly change the way in which a business is constituted, having accurate, real-time data and analytics, as well as the on-demand tools to create, share and weigh new business scenarios is truly invaluable.

While most people may think only in terms of large corporate events where this measure of value is applicable, the reality is that these events are occurring every single day, at a local or departmental level, across every organization. What costs are being invisibly incurred by such organizations that do not have such a rapid-response system in place?

### **One Company's Surprising Planning Decision**

Recently, a large European telecommunications company analyzed the need for restructuring its workforce to lower costs. The company's management made the initial assumption that removing a layer of personnel would provide the necessary savings. After completing an organizational charting initiative which mapped the company hierarchy, and conducting a spans and layers analysis of the hierarchy, the company discovered that it was not possible to maintain its health by removing a layer of personnel. It concluded that such a move would affect vital communication and management which would do long-term damage to customer relationships. As a result, the company decided to maintain its current organizational structure and looked for cost savings elsewhere. Previously, it took this telecommunications giant seven weeks to compile the data for a re-organization assessment and model the implications of the move. When using the [intelligent charting] software, it took only a week.

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