/isual UpTime *Select* 

# Visual UpTime<sup>®</sup> Select<sup>™</sup> Managing the network for application performance

# Visual UpTime *Select* enables you to:

networks

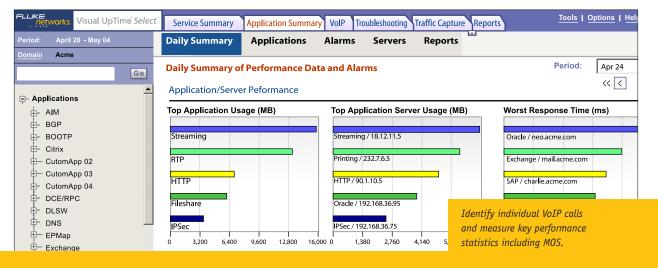
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- Auto-discover applications and servers on the LAN and the WAN - including distributed applications like VoIP and Citrix
   across your entire infrastructure
- Isolate the cause of poor response times
   network, server, client or application
- Validate carrier SLAs and Class-of-Service delivery for IP applications
- Identify and solve performance issues proactively with complete Layers 1-7 troubleshooting functionality
- Monitor individual VoIP calls and isolate performance problems quickly
- Leverage existing investments by integrating with existing management systems like IBM Tivoli, HP OpenView and BMC Patrol
- Lessen the impact of security threats by using network indicators to warn of abnormal traffic and usage patterns to quickly and effectively respond and restore operations

Your network – and the applications such as Voice over IP (VoIP) that traverse it – is critical to the success of your organization. Network and application downtime represent significant operational costs. Consider these scenarios:

- A retailer misses out on online sales when customers cannot complete purchases on its Website.
- The performance of a manufacturer's global supply chain application deteriorates because of bandwidth limitations caused by employees swapping music files.
- The network that supports one of Wall Street's biggest financial institutions is severely degraded during trading hours due to poor application performance.
- The new VoIP deployment is not working properly.

Organizations of all sizes across all industries deal with these situations regularly. Are you in control of your network and the applications you use every day? What can you do to optimize application performance over the LAN and WAN at every site in your enterprise? To meet these challenges, Visual UpTime *Select* provides in-depth, real-time and historical information that enables you to intelligently manage application, network performance and availability across an entire enterprise.



### **Dashboard view**



### How Visual UpTime Select works

Knowing whether a site on your network is up and running by checking its status at a regularly scheduled interval isn't enough. Head-end only coverage is less than ideal as organizations are increasingly rolling out peer-to-peer applications like VoIP, Citrix and Web Services, where users at remote sites can communicate directly with one another without information flowing into a headquarters location.

While real-time monitoring takes place, Visual UpTime *Select* archives network, server and application data in a back-end database that provides a holistic view of performance across the enterprise. This database offers a comprehensive set of views that can be shared simultaneously by multiple users to plan capacity, create reports and troubleshoot performance problems. Enterprises can monitor events across the infrastructure – including the local loop, port, site-to-site circuit, application and server performance.

# Build the solution that meets your business needs

Visual UpTime *Select's* scalable architecture includes cost-effective Analysis Service Elements (ASEs) that are deployed throughout your network – either as Ethernet probes, CSU/DSUs or inline probes. The ASEs passively monitor actual data flows and store the information locally providing up to one-second granularity.

The flexible nature of Visual UpTime *Select* allows you to add functionality incrementally, licensing software modules on an as needed basis. The ASE is a sensible choice for access devices at the boundary between your enterprise and service providers. Even if you deploy them without management software modules, you can still begin collecting and archiving data for use later on, and see events and status via Select Service Summary<sup>™</sup>. And if you decide to add a software module, your license key provides visibility without a hardware swap out.

## Auto-discover applications and uncover rogue applications

Rogue applications can wreck havoc across an enterprise. By auto-discovering both authorized and rogue applications, you will quickly find issues on your infrastructure. In addition, be proactively alerted when performance exceeds normal baselines or when unanticipated applications and servers appear on the network.

Rogue Applications (4)			
Applications			
eDonkey			
Kazaa			
YahooMsg			
Streaming			

#### Top Application Server Usage

Streamin	g / 18.1.	2.11.5			
Printing /	232.7.6	.5			
HTTP/90	.1.10.5				
Oracle / 1	92.168.	36.95			
IPSec / 19	2.168.3	6.75			
1,3	80	2,760	4,1	40	5

Worst Resp	onse Ti	me (ms)	)
Oracle / neo.a	cme.com		
Exchange / m	ail.acme.c	om	
SAP / charlie.a	cme.com		
HTTP / intrane	et.acme.co	om	
Oracle / trinity	/.acme.co	m	
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Select S	ervice Summary A	pplication Summary	VolP Troubleshooting	Traffic Capture	Report
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Summary Applications	IP CoS	AppFlows	VolP Calls	Burst	
View: Summary					
			Current Bucket	Interval: Ma	nr 27, 1
Group: Application Usage By	Local Host	-			
Filter: None =	•	•			
Application Local Host		Rem	ote Host		
+ Exchange	27 Hc	osts			8
± FTP	209.2	27.34.45			2
Streaming	48 Hc	osts			19
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Identify individual VoIP calls and measure key performance statistics including MOS.





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		Iwo	Day Period:	Nov 20, 1	1:45 to Nov 22,	, 22:45	$\odot$	2 Day History
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History: 15 Min	utes 🗸 Ca	ll details for: No	v 22, 12:21 to	Nov 22, <sup>-</sup>	2:36 🔟		Display: Phor	ne S 🗸 🗸
Filter: None	V				Filter Filte	r within results		
	Local Phone	Rem	ote Phone					Setup
MOS	Phone #	Phone #	Site		Call Manager	Start Time	Duration	Protocol
4.53	6178564310	8184214564	Los Angeles		Primary CM	Nov 21, 22:36	2m:33s	SIP
2.52	6178563277	8184213432	Los Angeles		Primary CM	Nov 21, 22:36	22s	SIP
4.51	6178566644	8184212354	Los Angeles		Primary CM	Nov 21, 22:36	3m:22s	SIP
2.35	6178565836	2124214534	New York		Backup CM	Nov 21, 22:36	15s	SIP
3.54	6178566663	8184213455	Los Angeles		Primary CM	Nov 21, 22:36	45m:21s	SIP
4.27	6178564523	2124215634	New York		Primary CM	Nov 21, 22:36	45s	SIP
2.61	6178566745	8184213433	Los Angeles		Primary CM	Nov 21, 22:36	20s	SIP
4.11	6178566734	2124215634	New York		Primary CM	Nov 21, 22:36	12m:44s	SIP
4.15	-	8184216778	Los Angeles		Backup CM	Nov 21, 22:36	9m:22s	SIP

#### **Monitor actual VoIP call performance**

VoIP deployments can affect every employee, every day. By monitoring and measuring actual VoIP calls, Visual UpTime *Select* optimizes VoIP performance across the enterprise. If there is a VoIP related problem, the solution can isolate the issue between the application and the network including delay, packet loss and jitter. Now enterprises can be proactive and identify and troubleshoot potential issues before the performance problems grow.

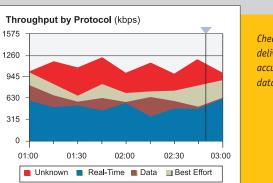
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Usage (KB)					
Tx	<u>Rx</u>	<u>Total</u> ▽			
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,588.34	18,979.12	21,567.46			
,347.27	77,571.22	96,918.49			
2,254.23	15,412.12	17,666.35			
198.54	1,425.47	1,624.01			
204.54	1,325.25	1,529.79			
206.41	1,541.25	1,747.66			
188.41	1,674.65	1,863.06			
175.14	1,324.24	1,499.98			
174.62	1,247.64	1,422.26			
211.01	1,342.24	1,553.25			
194.54	1,468.87	1,663.41			
148.51	1,356.14	1,514.65			
179.35	1,635.27	1,824.62			
198.57	1,715.66	1,314.23			

# Monitor individual application flows

By monitoring client-to-server, server-to-server and peer-to-peer application flows, you have the visibility to see individual VoIP calls, identify virus attacks, and monitor application usage by server or end-users. Now you can be more proactive and solve potential problems before they become outages.

Select AppFlows monitors individual application flows, which help identify potential issues, such as which users are streaming basketball games against policy.



Check Class-of-Service delivery by viewing accurate performance data.

### Validate SLAs and Class-of-Service delivery

The drive to IP and MPLS platforms means IT infrastructures must be able to deliver traffic according to precise Class-of-Service classifications for "sensitive" applications, such as VoIP and video over IP. Visual UpTime *Select* shows you key indicators to assure you're meeting SLA and IP Class-of-Service delivery commitments.



# Tailor your system with these software modules

Thanks to Visual UpTime *Select's* modular architecture, you can buy the software capabilities you need today and license additional functionality as your business needs evolve.

Select AppFlows<sup>™</sup> drills down to provide an end-to-end visibility into individual application flows – peer-to-peer, client-to-server and server-to-server – to help identify bandwidth hogs and unauthorized or unknown/rogue applications at the user level.

Select AppSummary<sup>™</sup> lets you automatically discover the applications that are running on your network, allowing you to proactively identify any rogue or unauthorized applications before they impact the enterprise.

Select Back-in-Time<sup>™</sup> offers a complete troubleshooting solution that provides insight into Layers 1-7 performance over a two-week period, arming you with the necessary intelligence to resolve pesky, intermittent problems that impact network and application performance.

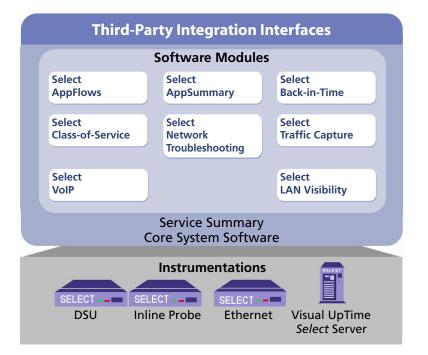
Select Class-of-Service<sup>™</sup> lets you monitor the prioritization of individual applications and manage service level agreements for each traffic class, thereby optimizing CoS settings.

Select LAN Visibility<sup>™</sup> provides additional visibility to track application and server performance within a LAN.

Select Network Troubleshooting<sup>™</sup> helps you troubleshoot network and application performance problems in real-time at each site, facilitating a more proactive approach to addressing infrastructure-related issues.

Select Traffic Capture<sup>™</sup> provides a full-function protocol analyzer at every site, letting you troubleshoot issues at remote sites by performing a detailed protocol analysis quickly and securely across every site in your infrastructure.

Select VoIP<sup>™</sup> provides detailed VoIP analysis on a per-site basis with automatic push-button pre-assessment, monitors and manages existing deployments, and measures VoIP metrics per individual call, including MOS.



#### N E T W O R K S U P E R V I S I O N

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